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A Gratifying Record.

What About School Bond Elections?

How the November Campaigns Were Supported and Opposed, and Their Results.

During a presidential year the American citizen is called upon to politically think and act in terms of the whole nation. Local matters sink into second place. And yet school bond elections, when the broad question of public education is under consideration, cannot be said to be matters of purely local concern.

Many boards of education submitted their school bond issue to the voters on November 4th on the day when they register their choice for the highest office in the land.

Whether it is wise as a matter of expediency to submit a local school question on the same day when state and national elections are to be determined, we are not prepared to argue. The answer must be found in the fate which overtakes the school bond issue questions as they come under the scrutiny of the taxpayer.

While school elections, namely, the choice of boards of education members as well as local bond issues, should be held on days other than general municipal or national election days, in order to secure a thorough consideration from a local point of view, it does not follow that the plan is entirely inexpedient. The patriotic spirit which a national election is supposed to arouse ought to react favorably upon school interests. At any rate, popular education and citizenship are inseparable in a self governing nation.

Thus, it becomes interesting to note the results obtained at the polls in behalf of local school bond issues on a day when the voter cast his choice for the chief executive of the nation.

How New Philadelphia Campaigned

The board of education of New Philadelphia, Ohio, went before the voters on November 4th with an S. O. S. (save our schools) in asking for \$375,000 for a junior high school.

In a printed announcement the reasons for a high school were fully explained, and then went into the financial considerations, namely, to explain just how much the project would add to the taxpayers' bill. "For the man with \$5,000 this means less than a postage stamp a day." Comparative figures were also presented. The value of the high school plants in twelve Ohio cities of similar population was enumerated.

The pupils were supplied with letters to their parents signed by the board members and the teacher. On election day noon every pupil carried a letter home which asked the question "Has father voted? Has mother voted? If either has not, do not delay longer, but vote immediately—now. If you have voted, see that your neighbor votes and votes for the issue of bonds."

The bond issue was safely carried by a vote of 4,055 for and 1,090 against. The board of education consists of Mrs. Ila B. Wright, president, Mr. Alvin F. Graff, vice-president, Mr. A. A. Stermer, Clerk, Mrs. Mary Meyer, Mr. Robert Dumermuth, Mr. C. S. McVay, superintendent, Mr. F. L. Mosher, director of buildings.

Ohio Cities Meet With Success

Elections in support of the schools were more numerous in Ohio than in any other state is explained in the fact that the general state law was not sufficiently flexible to adjust itself to the increased costs of school maintenance. It left the question entirely to the localities permitting them to exact an additional 3 mill levy for a period of five years.

Many communities therefore were obliged, in addition to bond issues for new school buildings, to submit the question of adequate maintenance to a popular vote.

Superintendent U. E. Diener of Celina made a study of the subject and found that of the



84 cities ranging in population from 4,000 to 100,000 and 41 cities below 10,000 revealed the following facts:

1. Thirty-four voted on extra levy at recent elections. 2. Thirty-eight voted at previous elections. 3. Thirty-eight voted on extra levy which does not expire this year. 4. Only four have not and will not vote on levy. Superintendent Diener draws the conclusion that the legal provisions for financing the schools are inadequate. He says: "We have been making constantly increasing demands upon the schools without making provision for a larger treasury. The abnormal increase in costs that every institution, private and public, has faced and is facing, proves that to do now only the same work that was done before the period of higher prices has meant a tremendous increase in running expense."

Akron. The \$2,500,000 bond issue for the purchase of sites and new buildings was carried 2 to 1 and the special 3 mill levy by a vote of 4 to 1. The bond issue vote was 26,709 yes; 13,621 no. The tax levy vote was 39,378 yes; 9,731 no. "We are all naturally very much pleased with the result of the election," said Superintendent C. H. Reed, "and feel that the schools are going to be on a solid financial foundation for the next five years at least."

Bay. A \$100,000 school bond issue was carried by a vote of 500 to 226.

Beehive. The consolidated school district of Beehive carried a \$250,000 bond issue by a vote of 399 to 72.

Canton. The additional 3 mill levy as well as the \$1,800,000 bond issue were carried by an almost 3 to 1 vote.

Cincinnati. The \$8,500,000 school bond issue was carried by a handsome majority. This majority became more striking when it was discovered that other municipal bond issues had failed. The success of the school interests was due to the merits of the bond project, but also to the effective campaign work done by the friends of the schools. The citizens' committee under the chairmanship of Dr. John M. Withrow, former chairman of the school board, did an excellent piece of service in this connection. Mr. B. H. Siehl, principal of the Hartwell school, who was in charge of the campaign as far as the schools took part, deserves great credit for his efficient management.

Many of Cincinnati's best known citizens rallied to the cause of the school bonds and spoke in behalf of the issue. Among the many persons who again and again from the platform urged the voters to grant the school bonds were the following: Superintendent Roberts, Dr. John M. Withrow, Dr. F. B. Dyer, Mrs. L. C. Fillmore, Mrs. Ernest Ach and Assistant Superintendents Otterman, Logan and Stewart.

Cleveland. In 1920 the Cleveland, Ohio, board of education was authorized to make a tax levy of three mills for local school purposes. According to the law this levy is exempted from tax limitations and is authorized for five years.

This year the board of education asked the voters to renew the three-mill levy for another

five years. This will make a yield of approximately \$5,645,000, a sum necessary to keep the schools running on present standards. The budget for 1924-25 calls for \$15,946,426. Without the 3 mill levy the board would be short about one-third of its actual needs and would have to resort to drastic reductions. This tax which was submitted five years ago had expired. Hence, the re-submission on November 4th. The 3 mill tax which will yield over \$5,600,000 each year for five years, was supported by the Chamber of Commerce, but opposed by the building owners' association. It was carried by a vote of 104,064 to 63,147.

Cleveland Heights. Unofficial returns from forty out of forty-seven precincts gave 6,098 for the \$1,500,000 school bond issue and 4,690 against. The 3 mill levy received 5,571 in favor and 3,551 against.

Dayton. A \$4,000,000 school bond issue was carried by a vote of 3½ to 1. The 2 mill levy for five years was carried by a similar vote.

Elyria. For a second time the voters of Carlisle Township refused to authorize the issuance of \$75,000 bonds to establish a centralized school.

Euclid. The \$500,000 school bond issue was passed by a 3 to 1 vote, there being 1,401 for and 521 against.

Fairview. A \$200,000 school bond issue was carried by a vote of 4 to 1.

Galion. The \$250,000 bond issue for a junior high school was carried by a vote of 2,438 to 834, practically 3 to 1.

Garfield Heights. A \$110,000 school bond issue for a new school and additions to present schools was carried by a vote of 711 to 455. A 3 mill levy was also won.

Hubbard. The \$275,000 school bond issue failed by a narrow margin of 109 votes.

Lancaster. The school bond issue calling for \$450,000 for a new high school failed.

Norwalk. The extra 3 mill levy for operating expenses was carried by a vote of 1,609 to 1,096. There was no school bond election.

Parma. A \$50,000 bond issue to be used for the purchase of school sites was safely carried.

Shaker Heights. The continuance of the 3 mill levy for operating expenses as well as the \$1,500,000 bond issue for new buildings were carried by a safe margin. "The 3 mill tax is absolutely necessary for the proper maintenance of the school," said Superintendent F. L. Wiley, "and the \$1,500,000 for buildings, together with the \$800,000 issued last year, will care for a building program affecting nearly every school in Shaker Heights and making provision in these schools for at least four years' growth." The vote was 2,225 for and 540 against.

South Euclid. The \$410,000 bond issue for a new high school in the South Euclid district which includes the village of Lindhurst was carried by a vote of 680 to 424.

Steubenville. A \$997,500 bond issue was carried by a 3 to 1 vote. The money will be used for two new buildings, one of 50 rooms and the other of 28 rooms.

Toronto carried a \$275,000 bond issue for a new high school. The returns showed that 1,452 voted yes, and 364 no.

Special tax levies for school purposes besides those reported above were voted at Brecksville, Rocky River, Solon, Chagrin Falls and North Olmstead. The special levies carried in Cuyahoga County will total \$2,770,000. In the Strongsville district the 3 mill levy was lost.

(Continued on Page 131)

The Financial Reports of One Hundred School Systems

Elmer H. Staffelbach.

Until very recent years, the annual school financial report was very much like any other kind of public fiscal report. It was designed to show that school money had been spent honestly for educational purposes. During the last decade or two the school financial report has been undergoing somewhat of a change. A number of items are being added, and some derived figures are being supplied which do not appear at all in the older reports.

These changes probably reflect fairly well certain changes in the nature of the purposes which the financial report is meant to serve. The older form of the report was probably sufficient at a time when education was a relatively simple matter, and when the public generally had a fairly definite knowledge of the work of the school. However, in recent years the activities of the school have grown beyond the comprehension of the people. Education has come to be a very complex as well as a very gigantic affair. People generally do not appreciate the educational opportunities that are being offered to their children. At the same time they have a very definite realization of the cost and burden which the support of public education involves. As a result, the people, in many communities, at least, have begun to assume a skeptical attitude of mind, not toward public education as they understand it, but toward educational leaders, and the kind of education those leaders are advocating.

It is to the credit of educational leaders that their honesty and sincerity are practically unquestioned. For the most part, their critics call them impractical and visionary. It is not an uncommon opinion among business men—so-called men of affairs—that educators have no sense of values, that they do not know the worth of a dollar.

While there may be some foundation for this criticism, it probably more often grows out of the inability of the school administrator to measure the "output" of the school in terms of economic values. This, in the main, is impossible. We are probably fully justified in maintaining that society receives full value for every dollar spent for education. In fact, it is probable that the school more than pays for itself in increased production, and in certain economic savings effected through the elimination of ignorance. But it is virtually impossible to show that the credit for such indirect results of education belongs to the school. On the other hand, other social and civic values of education, though unquestionably real, are of such a nature that they cannot well be reduced to a basis of dollars and cents.

In some of the recent reports there is evidence which goes to show that, in spite of the many difficulties involved, attempts have been made to impress the public with the fact that its money has not only been spent honestly for education; but, also that it has been spent efficiently, and in answer to very real educational needs of the people.

Nature and Extent of Educational Expenditures

The Purpose and Extent of This Study. For the purpose of determining what efforts are being made and what means are being used by educational administrators to acquaint the public with the nature and extent of educational expenditures, a study was made of the financial reports of one hundred city school systems. The reports were chosen at random, and were

TABLE I. Cost Analyses Contained in the Financial Reports

Items Included in the Reports	43 cities of 5,000 to 25,000 pop.		34 cities of 25,000 to 100,000 pop.		23 cities of over 100,000 pop.		Total of 100 cities	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
COST ANALYSES BY:								
Administrative departments	34	79	25	76	21	90	80	80
Types of schools.....	9	21	10	30	13	56	32	32
Schools of the system.....	6	14	9	27	10	43	25	25
Different subjects and departments.....	5	11	4	12	3	13	12	12
Objects	12	28	17	50	15	65	44	44
ANALYSIS OF THE SCHOOL DOLLAR BY:								
Administrative departments	4	9	4	12	1	4	9	9
Types of schools.....	1	2	2	6	0	0	3	3
Schools of the system.....	1	2	1	3	0	0	2	2
Objects	2	4	2	6	0	0	4	4

*Note: This column gives the number of reports that include the given item.

for the most part for the fiscal year 1922-1923, though in a few instances the reports were for the year previous to that. A few reports for the fiscal year 1923-1924 were also included in the study.

The reports were divided into three groups according to the size of the cities represented. Forty-three of the reports were from cities ranging from 5,000 in population to 25,000 in population; 34 were from cities ranging from 25,000 to 100,000 in population; and 23 were from cities of more than 100,000 people. The purpose of this classification was to determine whether or not a difference in the form and content of the reports of different sized cities would be significant. As will be seen in the tables which follow, such significant differences, if they exist at all, are very rare.

Officials Making the Reports. In 29 cases out of the one hundred, the reports were issued in the name of the school board only; in 28 cases, in the name of the superintendent only; in eighteen cases, in the name of the clerk or secretary only; and in sixteen cases, the reports were issued in the name of two or more officials. Other officers making reports were the city treasurer, the city auditor, the business manager, and the finance committee. Though, in many instances, the reports were addressed to the school board, and in other instances to the city officials, the very fact that they were published seems to indicate that they were meant for the people as well.

The Volume and Form of the Reports. An average of thirteen per cent of the entire report was devoted to financial matters. The volume of the report was frequently increased by the inclusion of long tables of inconsequential accounts, containing, in some instances, full statements of the year's expenditures in chronological order. As a matter of fact, the most satisfactory reports in most cases were those of moderate than of extreme length. The reports of two cities of less than 25,000 people contained no financial statements of any kind.

Thirty-seven of the reports contained audits of school finances, and seventeen contained budgets for the following year.

Ninety-six of the financial reports included tables, and 38 included some interpretative discussion. The lack of helpful discussion is felt by the reader in attempting to interpret many of the tables. The chart, a device which might be used with good effect in connection with the reports, is rarely used, appearing in only four out of the total of one hundred.

General Figures Pertaining to Wealth and Income. A statement of the valuation of all city property is given in twelve of the reports, and the amount of city property per child in average membership is given in two reports. Seventeen of the reports contained statements of the valuation of all school property. Sixty-

two reports included itemized statements of educational incomes by amounts and sources.

Costs and Cost Analyses

The total expenditure for education was given in all but two of the reports. The analyses made of educational costs can best be shown by means of the following table:

The analyses by administrative departments for the most part follow the plan used by the Federal Bureau of Education in reporting financial statistics. The item, "By types of schools," indicates that the costs were given separately for the elementary, junior high, and high schools. In certain cases the costs were given separately for the "Different schools of the system"; e. g., the Longfellow Grammar School, the Beecher High School, etc. Certain reports also gave cost figures by "Subjects and departments," such as English, manual training, etc. In a few instances where costs were given by subjects and departments, they were given for only a few of the curricular departments. Generally, where such an analysis was made at all, it was made complete for the entire curriculum. The item, "By objects," signifies that expenditures for items such as teachers' salaries, textbooks, labor, etc., were given separately.

All of the financial reports included some form of cost analysis. The majority of such analyses were made either by administrative departments or by objects. Such analyses, though important statistically, are not very significant for the people of the community, who tend to be interested more in the product than in the process of education, and who, for this reason, are more likely to find a significance in analyses by curricular subjects and departments, and by types of schools. Yet, only 32 per cent of the reports make any distinction between costs of elementary education and the costs of secondary education, and only twelve per cent show that attempts have been made to differentiate costs by curricular subjects and departments.

The curriculum has been widened to include many activities that had no place in the school a generation ago. In some cases such activities are among the most expensive in the school. In spite of their cost, they can probably be justified; but, it seems more fitting that their justification should be based upon values contained in the activities themselves than that it should be based upon the commonly acknowledged values of education in general. In other words, instead of combining the costs of reading, arithmetic, etc., and calling the total the cost of education, the cost of each curricular subject should be given separately, and should be separately justified.

An analysis of education costs by different schools or buildings of the system is given in 25 per cent of the one hundred reports. It

would seem that such figures should be not only of interest to the public; but, of value to the school administrator.

Analysis of the of the "School Dollar." An analysis of the school dollar merely presents the matter of school expenditures from a different angle than that of cost figures. A complete and minute analysis would probably be more confusing than helpful; but, where partial analyses were made in the reports they supply information that is usually valuable to the reader. Nine of the reports included such analyses by administrative departments, and two reports contained analyses by types of schools. In two reports analyses of the school dollar were made to cover the different schools of the system, and in four reports partial analyses were made by objects. No analysis of the educational dollar, by subjects and curricular departments, was found in any of the reports studied.

Cost Comparisons. Comparisons with the cost figures of former years in the same city are probably of little significance, except in cities where conditions are peculiarly static. Comparisons of costs between cities are likely to be misleading rather than useful, even though the cities are of equal size. As may be seen in Table II, such comparisons between cities were made in but two reports. Though comparisons with the costs of former years in the same city occur with somewhat greater frequency, the number of such comparisons is also relatively small.

TABLE II. Education Costs Compared

Items Included in the Reports	43 cities of 5,000 to 25,000 pop.		34 cities of 25,000 to 100,000 pop.		23 cities of over 100,000 pop.		Total of 100 cities	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
COST COMPARISONS WITH PREVIOUS YEARS IN THE SAME CITY:								
Total comparisons made.....	6	14	8	23	7	30	21	21
By administrative departments.....	5	11	6	17	5	21	16	10
By types of schools.....	1	2	1	3	3	13	5	5
By schools of the system.....	0	0	1	3	1	4	2	2
By subjects and departments.....	0	0	0	0	1	4	1	1
COST COMPARISONS WITH OTHER CITIES:								
Total comparisons made.....	1	2	1	3	1	4	3	3
By administrative departments.....	0	0	1	3	1	4	2	2

*Note: This column gives the number of reports that include the given item.

Unit-Costs Used in the Reports Studied

An examination of Table III will reveal the fact that the unit-cost per child enrolled was used in eighteen cases. The unit-cost per child in average membership was used in 27 cases, and the unit-cost per child in average daily attendance was used in 21 cases. The cost per pupil-credit (for high school only) was given in only two reports out of the entire one hundred.

The unit-cost per child enrolled is probably less significant than either the unit-cost per child in average membership or the unit-cost

per child in average daily attendance; for the reason that its meaning is less definite. For strict accuracy and definiteness, the unit-cost per child in average daily attendance is probably most dependable on the three. In communities where the industries are of a seasonal nature, the unit-cost per child in average daily attendance may be somewhat disadvantageous; for the reason that educational facilities will have to be provided to meet the greater rather than the average need, and, therefore, the unit-cost per child in average daily attendance will tend to be higher than in places where seasonal fluctuations of attendance do not occur. However, such conditions will hardly be found in many cities of considerable size.

The unit-cost per pupil-credit gives the cost in relation to the net "output" of the school, and is very significant. This unit-cost, when given with the unit-cost per child in average daily attendance or with the unit-cost per child in average membership, helps to shed much light upon the matter of school costs, especially with regard to the expense of retardation. The per-pupil-credit or per-pupil-passing unit might well be applied to the junior high school and the elementary school as well as to the high school. Though, it is true, that the pupils who fail to make passing grades in their work undoubtedly derive some benefits from the studies pursued, the real "output" of the school can best be measured in terms of the students who are successful in their work. To say that it costs so much per pupil averaging a grade of

75 or more in a certain subject, or, better still, to say that it costs a certain amount per pupil meeting the requirements of a certain standardized test in a given subject, is to give information somewhat definite in nature.

All that has been said above, relative to cost analysis, might well be repeated here with even greater emphasis in connection with the subject of analysis by unit-costs. Table III shows that unit-costs were given for the entire system in 38 of the reports, by administrative departments in 25 of the reports, by types of school in 29 of the reports, and by schools of the sys-

tem in nineteen of the reports. Unit-costs by subjects or by curricular departments were given in but eight of the one hundred reports.

The value of the unit-cost lies in the fact that it gives the cost in relation to some factor involving either the educational need or the educational result. This fact makes it far more meaningful than bare cost figures. In fact, in so far as the public is concerned, the significance of cost figures may be included in the unit-cost. The fact that no form of the unit-cost was found in 62 per cent of the reports probably indicates that its values are not fully appreciated.

Unit-Cost Comparisons

As a means of comparison, the unit-cost has striking advantages over cost figures. Comparisons with unit-cost figures of former years in the same city were found with the following frequencies: Per pupil enrolled, in four reports; per child in average membership, in nine reports; per child in average daily attendance, in six reports; and per pupil-credit, in one report. The unit-costs for the entire systems were compared in thirteen reports, by administrative departments in six reports, by different types of schools in twelve reports, by the different schools of the system in seven reports, and by subjects and departments in one report.

Such comparisons are always interesting, and they are usually also instructive. By means of such comparisons it is often possible to show that increases in expenditures have not been out of proportion to increases in attendance. Also, where the increase in expenditures has been out of proportion to the increase in attendance, a comparison of all the various unit-cost will reveal the cause.

Unit-cost comparisons with other cities are also likely to be both interesting and significant. It is but human for the people of one community to want to compare what they are doing with what is being done in other communities. To be reliable, such comparisons should be made with extreme care. Comparisons, which were made in many of the reports, between widely separated cities of very different conditions are of doubtful value. Then, too, to be accurate, the figures used in such comparisons should be similar and should have common bases. In certain reports comparisons were drawn between the unit-costs in cities in which the length of the school term differed considerably in length without allowance being made for such differences. Such comparisons are not only valueless but misleading.

Judging from the reports studied, it seems that many school administrators need to remember that comparisons, no matter how favorable they may be, lack finality. Comparisons should be used as aids in convincing the community that the cost and burden incident to the support of its schools are not extraordinarily heavy. The final justification of educational expenditures should rest upon the achievement of the school, and should, somehow, be made in terms of educational accomplishments.

Measurement of the Economic Burden Incident to the Support of Public Education. Relatively, very few of the reports give evidence of attempts to show the extent of the economic burden the cities are bearing in their support of public education. Apparently, it is the opinion of the great majority of officials issuing the reports that this particular matter needs no emphasis. Without much doubt the public, in most communities, at least, is fully cognizant of its economic burdens. However, there are a number of reasons why the exact burden of educational support should be carefully measured and reported upon.

TABLE III. Unit-Costs and Unit-Cost Comparisons Found in the Reports

Items Included in the Reports	43 cities of 5,000 to 25,000 pop.		34 cities of 25,000 to 100,000 pop.		23 cities of over 100,000 pop.		Total of 100 cities	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
EDUCATION UNIT-COST PER:								
Child enrolled.....	6	14	7	21	5	22	18	18
Child in A. D. A.....	7	16	7	21	7	30	21	21
Child in average membership.....	10	23	10	30	7	30	27	27
Pupil credit (high school).....	0	0	0	0	2	8	2	2
UNIT-COST COVERING:								
The entire system.....	11	25	15	44	12	52	38	38
Administrative departments.....	6	14	10	30	9	39	25	25
Types of schools.....	7	16	9	27	13	56	29	29
Schools of the system.....	3	7	4	12	12	52	19	19
Subjects and departments.....	2	4	2	6	4	17	8	8
UNIT-COSTS COMPARED WITH THOSE OF PREVIOUS YEARS IN SAME CITY:								
Per child enrolled.....	1	2	2	6	1	4	4	4
Per child in A. D. A.....	1	2	2	6	3	13	6	6
Per child in average membership.....	3	7	4	12	2	8	9	9
Per pupil credit (high school).....	0	0	0	0	1	4	1	1
SUCH UNIT-COST COMPARISONS COVERING:								
The entire system.....	3	7	5	14	5	21	13	13
Administrative departments.....	2	4	2	6	2	8	6	6
Types of schools.....	3	7	5	14	4	17	12	12
Schools of the system.....	1	2	4	12	2	8	7	7
Subjects and departments.....	0	0	1	3	0	0	1	1
UNIT-COSTS COMPARED WITH THOSE OF OTHER CITIES:								
Per child enrolled.....	1	2	1	3	0	0	2	2
Per child in A. D. A.....	3	7	0	0	1	4	4	4
Per child in average membership.....	3	7	4	12	0	0	7	7
SUCH UNIT-COST COMPARISONS COVERING:								
The entire system.....	1	2	2	6	0	0	3	3
Administrative departments.....	1	2	3	9	1	4	5	5
Types of schools.....	2	4	0	0	1	4	3	3
Other means of comparison.....	0	0	0	0	0	0	0	0

*Note: This column gives the number of reports that include the given item.

TABLE IV. Attempts to Measure the Burden Incident to the Support of Education

Items Included in the Reports	43 cities of 5,000 to 25,000 pop.		34 cities of 25,000 to 100,000 pop.		23 cities of over 100,000 pop.		Total of 100 cities	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Education costs per capita of total population.....	0	0	1	3	1	4	2	2
Local tax rate for education	6	14	5	14	4	17	15	15
Local tax rate by administrative departments	0	0	1	3	0	0	1	1
Local tax rate by types of schools.....	0	0	1	3	1	4	2	2
Local tax rate for education compared with rates of former years	2	4	5	14	1	4	8	8
Local tax rate for education compared with rates in other cities	3	7	1	3	0	0	4	4
Itemized statements of education debt.....	1	2	4	12	6	26	11	11
Debt items compared with similar items in former years	1	2	2	6	0	0	3	3
Debt items compared with similar items in other cities.	0	0	1	3	2	8	3	3

*Note: This column gives the number of reports that include the given item.

In the first place, because of the prevailing methods of levying taxes, increases in burden are often more apparent than real. It is not unlikely that carefully conducted studies of the situation would help to convince the people of many communities that their schools are really less burdensome than they think them to be. Also, it is not an uncommon practice for public officials to blame the schools unduly as causes contributing to high taxes. The financial report offers the school administrator the opportunity to give the public the facts as they exist.

Table IV shows that the burden, in terms of the local tax rate for schools, was given in fifteen of the reports. Analyses of the tax rates by administrative departments were made in two reports, and in one report an analysis of the tax rate was made by types of schools. Comparisons with the school tax rates of other years were made in eight of the reports, and with the tax rates in other cities in four of the reports.

Analyses of Tax Rate

Analyses of the tax rate are, in the opinion of the writer, of doubtful value. The information made available by this means can, in most cases, be better and more easily shown by analyses of costs. Analyses of the tax rate, where made, should be made by types of schools and by curricular subjects and departments, rather than by administrative departments. The line of division between the different administrative departments is in, many instances, not clearly drawn. Items of expenditure that in one city are classified in one department are often found differently classified in

other cities. Too, the people generally do not have very clear ideas of such departmental distinctions. They are more interested as well as better informed about curricular subjects and departments.

Conclusion

It has not been the writer's purpose, in this article, to attempt to establish a procedure for financial reporting. That is a problem for an entirely different paper, and quite probably for a different writer. It has been the writer's purpose to set forth briefly what he found in the course of an intensive study of one hundred school financial reports, and, in a general way, to criticize those findings.

On the basis of the study, as presented in the foregoing, it seems to the writer to be fair and reasonable to conclude that the financial report, as an agent of information between the school and the public, is not being utilized to the fullest extent of its possibilities; for the following reasons:

1. Many of the reports contain statistics which are of little or no value.
2. Statistics, which could be derived by very little clerical labor, and which would be of great interest and importance to the public, are not found in many of the reports.
3. In many of the reports there is a need of more interpretative discussion to bring out the significance of the figures presented.
4. Valuable statistics might be given increased significance and rendered more easily interpretable by means of simple charts.
5. Comparisons of statistics are sometimes inaccurate.

The Peru Single Salary Schedule

G. W. Youngblood, Superintendent of Schools.

A single salary schedule for teachers is justified on the grounds that it aids in securing the most effective teaching possible. The welfare of the children is at the heart of this question.

The salary schedule which has been in use in the Peru schools for a few years was largely based upon the license system which is now tradition. The minimum salaries for grade teachers were different, depending upon the grade of license held by the teacher. She was given \$2 per month for each year of experience and \$2.50 per month for attending summer school for twelve weeks. A teacher received \$5 per month for teaching in the junior high school and the same increase for training and experience that was received by the grade teachers.

The initial salary of a high school teacher was \$1350 regardless of training and experience but received \$5 per month for each year of experience.

Frequently grade teachers asked for positions in the junior high school for no other reason than the financial consideration.

The following points were discussed with the board of education in considering a new single salary schedule:

1. A single salary schedule will tend to make every teacher satisfied wherever she may be working. If she is happy in the first grade, pay

her a salary that will justify her in staying where she is and prepare to do her work better.

2. Better trained teachers can be secured under a single salary schedule.

3. Teaching will become a profession and a larger per cent of teachers can be retained, resulting in a better school for the child.

4. A single salary schedule will raise the standards and qualifications of teachers which will also mean better schools.

5. This schedule will stimulate professional growth on the part of teachers.

SUPERVISION AS SEEN BY THE TEACHER

From the standpoint of many teachers, supervision is an evil to be endured, an ordeal to be passed through, rivaling the fierce and fiery trials of medieval times, from which, however, one does not always emerge unscathed or unharmed. To other teachers, and I believe to a distinctly larger class, supervision offers opportunities for receiving help, chances for guidance along the way, and occasions for receiving suggestions that will make rough places smooth. These teachers honestly wish to improve their methods, and they look to their supervisors for those qualities of leadership and training and scholarship which, they believe, should characterize those appointed over them.—S. Augusta, Taintor, Theodore Roosevelt High School, New York City.

The Single Schedule in Peru

For the purpose of a salary schedule, teachers in the Peru schools are grouped into four classes:

Class A—Includes all teachers who have completed a two-year standard normal course or its equivalent, over and above a standard four-year high school course or its equivalent.

Class B—Includes all teachers who have completed a three-year standard normal or college course or its equivalent, over and above a standard four-year high school course or its equivalent.

Class C—Includes all teachers with a bachelor's degree representing four years of standard college work, or is equivalent, over and above a standard four-year high school course or its equivalent.

Class D—Includes all teachers with a master's degree representing five years of standard college work or its equivalent, over and above a standard four-year high school course or its equivalent.

Classes on basis	Class A	Class B	Class C	Class D
Professional Training	Two Year	Three Year	Four Year	Five Year
Minimum Salary.	\$990	\$1170	\$1350	\$1530
Annual Increase.	9x\$45	9x\$45	10x\$45	10x\$45
Maximum Salary.	\$1395	\$1575	\$1800	\$1980

The salaries of principals, assistant high school principal, special teachers, supervisors and school nurse shall be determined on individual basis each school year.

Nothing in this schedule shall be so construed as to prevent the board of education paying whatever salary they think best in order to obtain and retain teachers of unusual ability and merit.

Annual Increases

Experience—The annual increase for each year of satisfactory service in Peru schools shall be \$45. Annual increases shall be granted by the board of education only when merited by satisfactory work, and on recommendation by the superintendent of schools. This annual increase shall extend over a period of nine years for teachers in classes A and B, and ten years for those in classes C and D.

A teacher shall have credit for previous experience in other school systems as follows:

(a) Credit on the salary schedule for a period not to exceed five years may be granted to appointees for previous experience in school systems where the teaching experience would be equivalent to that gained in Peru. Evaluation of this experience in all cases is to be made by the superintendent of schools.

(b) Only experience gained within five years immediately preceding the beginning of service in the Peru schools will be recognized.

(c) A year of experience shall mean not less than six months' term.

Training—Each teacher must be working on one of the following courses: two-year normal course; three-year normal course; four-year course (A. B. or B. S.); five-year course (A. M.).

When a teacher qualifies for a higher class she shall be transferred to that class on or before the opening of the next school year, and shall receive the sum of \$180 in addition to the salary received in the preceding class. If a teacher earns 15 semester hours in an approved school during the summer, she shall receive one-half of this amount in addition to the last salary.

A teacher shall receive \$90 for the first 15 semester hours on any course but not for the second 15 semester hours until she graduates from that course.

Grade teachers who began to teach prior to August 1908, meet training requirements, but are urged to attend summer school.

Teachers who began to teach in the Peru schools after August 1908, and do not have a credit for 60 semester hours in an approved normal school or college, or the equivalent, shall attend school each summer until they meet this requirement.

Teachers who shall hereafter be employed to teach in the Peru schools but who do not have a credit for 60 semester hours in an approved normal school or college, or the equivalent, shall attend school each summer until they meet this requirement.

Only such high school teacher, supervisors and special teachers who meet the requirements of the North Central Association shall be employed in high school.

The Janitor-Engineer Problem*

George F. Womrath, Assistant Superintendent in Charge of Business Affairs, Board of Education, Minneapolis, Minnesota.

Along with the many changes which have taken place during the past few years in national, state and local laws and ordinances affecting public schools, there has come a realization that the men to whom school buildings are entrusted must not only be able to shovel coal into the furnace, scrub, sweep, clean, dust, and perform the usual janitor-engineers' chores, but they must have a thorough knowledge and understanding of the science of heating, ventilation, humidity, sanitation, housekeeping, etc. They must also have, as a prerequisite of their vocation, a highly developed appreciation of the fundamental purpose of a schoolhouse, namely, the proper education of the youth of the nation amid comfortable, cheerful, sanitary surroundings.

These qualifications of a schoolhouse janitor-engineer can no longer be superficial. It is unthinkable that heating means an indiscriminate shovelling of fuel into a furnace and the maintenance of a temperature "about 70°." It means an understanding of the economic combustion of fuel, and the distribution and precise control of the resultant heat so that a constant, predetermined temperature may be maintained at any given locality in the building.

Ventilation no longer means the haphazard opening and closing of windows or the mere operation of a ventilating fan. It means the tempering, purifying, humidifying, distribution and precise control of air throughout a schoolhouse.

School Housekeeping

Housekeeping no longer means the wielding of a corn broom and feather duster, and the slopping about of soap suds on a dirty floor. It means an intelligent exercise of brains in the proper directing of effort toward the accomplishment of certain objectives, among which are cleanliness, orderliness, tidiness and sanitation. This does not mean the kind of cleanliness which cleans only the center of rooms and corridors; but that which also digs the dirt out of every corner, nook and crannie throughout the building, from, to, and including basement and attic. It does not mean the kind of orderliness which nicely arranges the furniture in the principal's office only; but that which also uniformly arranges the desks, chairs, window shades, furniture and fixtures in every room in the building. It does not mean the kind of tidiness which carefully drapes a curtain on a glass door to hide the disorder within; but that which sees that the contents of every closet and cupboard are neatly arranged, that the pictures hang straight on the walls, and that the entire contents of the schoolhouse are "picked-up." It does not mean the kind of sanitation that partially removes the surface dirt from the floors and furniture with a corn broom and a feather duster, only to thickly laden the atmosphere with dirt and dust for transfer and redeposit on the walls, mouldings, and fixtures; but that which scours and purifies every part of the building.

It is quite as necessary that boiler rooms, fan rooms, attics and store rooms be swept and "picked-up," and that all woodwork, door handles and glass, whether in windows or in bookcases, cupboards, etc., be washed and cleaned, and that toilet rooms be free from filthiness and foul smells, as that the more conspicuous and more frequented parts of the building be well cared for.

Quite recently I visited a school with several men and women members of a school board and experienced no little sense of amusement at the

Editor's Note: This is the first of an important series of papers on janitorial-engineering service for public schools to be printed during the next six months. The papers are the result of many years of experience and study by the leading authority on the subject and will form a most useful guide for school boards and others engaged in hiring and managing janitor-engineers.

antics of the members of our party, and of admiration for the efficiency of the janitor-engineer-in-charge when he became so ebullient with pride and enthusiasm over his work that he had all of us kneeling on the floors, to look for dirt under bookcases and cabinets, and climbing on boxes and ladders, to search with our fingers for dust on the tops of blackboard mouldings and furniture, or to discover, if we could, the slightest indication of service poorly performed.

Intelligence Essential

If the desired janitorial objectives are to be achieved, it must be recognized at the very start that it is essential that an intelligent janitorial personnel be maintained in our school buildings. The persons comprising this personnel must be alert to what the proper physical requirements of a school are; must know how to accomplish required results; must see that the work is promptly and efficiently performed; and must have the ability and inclination to maintain a high standard. It is also necessary to appreciate that the human being known as a janitor, or janitor-engineer, has certain limitations: as much so as that a grade school teacher can properly and efficiently teach a class of no more than forty pupils; that the hours of teaching shall not exceed from four to six per day, according to the subject taught; etc.

The trouble with the janitorial and engineering service in public schools is that we have been concerned with personalities—with men and women, engineers, janitors and charwomen—and have been distracted from the main issue with questions pertaining to unionism, wages, hours of service, etc. As a matter of fact, we are dealing with an integral part of modern education as essential to its success as are the teaching force, the courses of study, and the school buildings in which the school attending portion of our national population is housed. Our concern should, therefore, be the solution of the problems which relate to the proper heating, ventilation, lighting, sanitation, housekeeping, etc., of our school buildings; care of the playgrounds; landscaping; the establishment of a comfortable environment for school teachers and pupils during school hours; and the proper conservation of the buildings and physical property entrusted to our care and representing an investment of public funds of more than a billion dollars.

It is universally conceded that the proficiency of the teaching force of an educational system, and the progress and advancement of its members, depends primarily upon the desire and ambition of the individual teacher to improve himself in his profession by preparation and study outside the classroom—by attending teachers' extension courses in summer schools, colleges and universities. It is likewise of no less importance that the personnel of the janitorial force of an educational system should make similar efforts for self-improvement, in order that the proficiency of the janitorial force may be uplifted and maintained. Gradually but surely it is being recognized that the training of caretakers of school property and premises is as important and as necessary as is the training of teachers, other employees in the educational division.

Deserves Serious Attention

Unfortunately, the employees in the janitorial force have not been given the consideration which the importance of their work warrants in the national plan of education. As a consequence, scant facilities have been provided for the education and training of the men and women who are employed in this branch of the public school service. Until the janitorial service of the public schools is accorded the dignity and respect which its importance as an integral division of our national educational system deserves, and until as careful consideration is given to the training and selection of the men and women comprising the personnel of the janitorial force, and to the performance of the work to be done, and to the results obtained, as is given to the training and selection of teachers, the establishment of a good school curriculum, and the building of good schoolhouses, a very vital and fundamental part of our public school system will be lacking.

Most of us are fully prepared and always ready and willing to advance what we believe to be the one-and-only way to manage a force of janitors and to perform the engineering and housekeeping chores in and about a public school. But when we are actually called upon to practice what we so glibly preach, we generally find it quite an easy matter to emulate the action of the fiddler crab—that world-renowned little side-stepper—or of that other active little creature commonly known as the crawfish.

It is one thing to prepare and publish a scholarly and voluminous set of Janitor-Engineer's Rules and Regulations and set up an ideal standard of janitorial service to be rendered; it is quite a different thing to realize the standard set up and have the rules work.

Even after setting up on paper the ideal conditions which should prevail in the care and operation of the physical side of our public schools, it invariably follows that such conditions are absolutely beyond accomplishment and impossible of realization with the type of employee now available. Nor is it the fault of the persons who have entered the janitorial profession that they lack the requisite qualifications to make them efficient public school employees. The fault is fundamentally that of our public school business administrators. These officials have been absorbed in so many other matters that they have failed to realize the importance of this division of their responsibility, and have not had due respect for the people engaged in this branch of public school service, and have neglected to provide proper facilities for them to educate and train themselves for the performance of the specialized work which they are called upon to perform. And because it is absolutely necessary to have men and women in the janitorial force who are specially trained and highly efficient in the performance of public school janitorial work—as custodians, engineers, firemen, cleaners, housekeepers, matrons, janitresses, etc.—it follows that any school system which does not take into account the qualifications of its janitorial-engineering personnel is doomed to either low efficiency and gross incompetence, or to complete failure.

The Way Out

What I am endeavoring to say is this: That in the last analysis the janitorial and engineering work in our public schools is doomed to failure if the men and women employed to do the work are not properly qualified.

What, then, is the way out?

(Concluded on Page 132)

State Taxation and School Support

William George Bruce.

(Concluded from November)

Taxation in Illinois

The law of Illinois provides that all property, real and personal, including money and credits, shall be taken at its full one hundred per cent value and then assessed at sixty per cent thereof, to which the tax rate is applied.

There can be no serious objection to a low rate of assessment provided it is uniformly spread and that the tax rate applied is sufficient to yield the required revenue. If the assessments are low, the tax rate applied must be correspondingly higher. If the assessments made upon a one hundred per cent basis mean a tax of \$25 per \$1,000 valuation, then a fifty per cent basis will mean \$25 on a \$500 valuation, or \$25 on a \$200 assessment. If a tax rate of two and one-half per cent is exacted on a one hundred per cent valuation, then a five per cent rate must be exacted on a fifty per cent valuation and seven and one-half per cent on a twenty per cent valuation. In either event the state must get its \$25 whether the assessment be fixed at \$1,000, \$500, or \$200.

But, where a low rate of assessments is permitted without applying a corresponding raise in the tax rate, a discrepancy or insufficient tax yield is certain to follow. And that is exactly what has happened in Illinois.

Realty and tangible property is assessed at about one-fifth of its true value without applying a compensating tax rate. One of the reasons for this situation may be found in the fact that a lot of property escapes its share of the tax burden altogether. Hence, the property that is taxed necessarily carries a heavier burden which the taxing authorities are loath to increase. Only one-tenth of the intangible property is taxed.

In the last report of the Illinois Tax Commission appears the following: "The net effect of the practices now prevailing in Illinois regarding assessments of property is shown by comparing the total value of all property in Illinois given out by the United States Census Bureau, with the total assessed value of property as equalized by the Illinois Tax Commission. In the preliminary report upon the wealth of the United States in 1922 which has just been given out by the United States Census Bureau, the total wealth of Illinois (which is the same as the total value of all taxable and exempt property in Illinois) is given as \$22,232,000,000.

The report of the Illinois Tax Commission (report of 1922, p. 10) shows that in the same year the total assessed value of all taxable property, as equalized by the tax commission, was \$4,000,497,373. In other words, twenty-two and one-quarter billions of dollars worth of property was assessed at four billion dollars.

The United States census reports for 1922 fix the total wealth of Wisconsin at \$7,866,081,000 while the assessed valuation of all property in Wisconsin as equalized by the tax commission in this year's was \$4,664,407,451, or something over fifty per cent. Thus, while Wisconsin assesses itself at about fifty per cent of its true value, the state of Illinois assessed itself on a twenty per cent basis. This, of course, does not prove that taxation is not as uniformly levied in the one state as well as in the other, or that realty and tangible personal property necessarily escapes taxation in one state and not in the other because of a varying assessment rate.

But, it does mean that the state that comes nearer the one hundred per cent valuation basis thereby increases both its tax and debt limits and can depend upon a more generous revenue.

Some years ago, while serving as tax commissioner of the city of Milwaukee, I found that the assessments which were supposed to be on a sixty per cent basis varied all the way from forty to eighty per cent. I gave orders whereby all assessments were to be based upon a one hundred per cent valuation.

The result was that throughout the entire tax roll greater equity was achieved. Assessors no longer floundered around an indefinite sixty per cent valuation, hitting it at various points from forty to eighty per cent. The one hundred per cent standard was more authoritative and more definite, and less subject to variations from the true value. A state tax commission may equalize taxes between the several taxing units; but it cannot attempt to equalize assessments between taxpayer and taxpayer.

Therefore, a tax system that aims to distribute its burdens with equity and uniformity must begin with an assessment roll that knows no variations from the full value principal.

The State Income Tax

There are two recognized systems of taxation which have been employed for centuries by the leading countries of the world and which have found recognition in the United States. The one is the property tax, already described, and the other is the income tax.

The countries of Europe have in the main long discarded the property tax and resorted to income tax principle. The one is based upon the selling value of physical, tangible, and intangible property; namely, land and the improvements thereon and securities representing wealth. The other is based upon income, or upon financial earnings. In brief, it is based upon the ability to pay taxes.

In many states, some twenty odd attempts have been made during the past century to inaugurate some form of income taxation. These have grown out of a desire to placate the taxation of intangible property, or where adopted during the stress of war, to replenish an exhausted state treasury.

Most of these state income tax systems have come and gone again. Where these were adopted to tide over a critical period they became obsolete again when that period was passed. Where they were introduced as a permanent revenue producing instrument they failed for various reasons. The reasons for their failure have, however, proved instructive and have taught what not to do as well as what to do if an effective system of state income taxation is to be established. In many instances the rate was merely nominal, the graduation or progression faulty, and the administration lax. The framers of these tax systems failed to realize that to devise them is one thing and to build the administrative machinery for their enforcement is quite another.

The successive failures of state income taxation led to the belief that practical administration was impossible. The federal government had delayed in recognizing the income tax principle and, therefore, state authorities lacked in national precept and models. Add to this the fact that all innovations in taxation are unpopular and it will become apparent why the several states failed to sustain an idea which seemed to them new and unworkable.

But, the United States was finally compelled to accept the income tax principle. With the era of war, prohibition, and reduced imports the nation had to find a new source of revenue. Huge sums were required and huge sums were

secured. The income tax proved an effective instrument in placing the stupendous burden of government upon those best able to bear it.

But, the nation's lawmakers, in planning a comprehensive tax device, realized, too, that it must be accompanied by administrative machinery, constructed with exceeding caution and care, if its operation was to prove effective and serviceable. The administrative machinery must be free from selfish political influences, thorough in locating wealth, and fearless in exacting all that the government is entitled to under the law.

Those who believed that, because the several states had failed, the federal government would record even a greater failure were afforded a valuable object lesson. What can be accomplished by the larger unit can also be accomplished by the smaller unit. In fact, it would seem reasonable to assume that if the United States, covering a larger area, can administer an income tax system efficiently, the state, as a fractional part, can administer the same with even greater thoroughness.

But, some of the states have demonstrated their ability to devise and administer an income tax system most effectively. New York and Wisconsin have amply proved that such systems can be made most serviceable in producing revenue. Nor would any one in these states, fully informed and actuated by a sense of fairness, dispute the soundness and justice of the income tax principle.

The Wisconsin income tax law was enacted in 1911. In 1913 it yielded a revenue of \$1,631,412 and in 1921 the revenue was increased to \$4,594,984. Illinois being financially, commercially, and industrially a far greater state could readily achieve a revenue under a similar measure of several times that amount. (The experience of the several states having dealt with the subject of income taxation are at your command in a volume written by K. K. Kenan, entitled *Income Taxation*.)

Since the federal government has recognized the income tax principle, and since both federal and state governments have demonstrated its practicability, the main contentions and arguments made against it have broken down. It can no longer be asserted that the principle is unsound, or that it cannot be justly applied as a revenue producing instrument upon the American continent.

But, when treated in the light of an existing property tax it may be well to ask the following question: If adopted by the states, should the income tax be in lieu of all other taxes, or in lieu of all other taxes upon personal property or the tax on intangible personal property?

Sound expediency would dictate that for the present it supplant the intangible property tax only. It would be unwise under the circumstances to attempt a complete substitution of the income tax for the property tax. Nor is it likely that so radical a change could be inaugurated. But, the utter failure of the intangible property tax is so completely demonstrated that its substitution by a serviceable instrument can only be welcomed.

Some years ago I had occasion to study at close range the taxation systems of England and Germany. Both are based on the income principle, the one taxing the source, the other the individual. I wondered why the United States, so progressive in all things, should cling to an antiquated, clumsy, inequitable

property tax system. At the same time, I believed that if the federal government accepted the income tax principle that in the states a complete substitution of the one for the other would be possible. I am no longer of that opinion.

The transition from the one to the other must be undertaken by degrees or in successive stages. At any rate, the income tax can for the present serve the state best by placating the weakest part of the old property tax; namely, the tax on intangible personal property.

This has been accomplished in Wisconsin where the income tax takes the place of the personal property tax in the following manner: Tangible personal property is assessed in the usual manner and an income tax return is exacted. The one tax becomes an offset to the other, in that the higher of the two only is paid. Let us say that your personal property tax is \$50 and your income tax \$100. You pay the higher amount in lieu of both. If the personal property tax should be higher, the same rule applies.

By this method tangible personal property does not escape, provided there is no income tax; but the income on intangible personal property is thereby taxed. Thus, the man who has neither realty or personal property, but nevertheless has a substantial income, cannot honestly escape his just share of the tax burden. There are substantial incomes which are derived from a manipulation of the forces in commerce and finance and the application of talent rather than capital, which now escape all state taxation.

While this means only a partial introduction of an income tax system, it wisely takes the place of the weakest part of the property tax and incidentally turns several million dollars into the state treasury.

Some one may contend that the tax yield in Wisconsin is proportionately higher than it is in Illinois. This may prove that the taxes are too high in Wisconsin; but it may also, with equal force, prove that the taxes are too low in Illinois. The more vital question is whether the two states exact enough revenue to meet the needs of their respective governments and whether the burden is equitably spread over a taxpaying constituency. Suffice it to say that Wisconsin has ample means with which to finance its schools.

The argument sometimes advanced that a state income tax, in view of the federal income system, constitutes double taxation is entirely without force. The several units are now subject to taxation in one or another form, and just as the federal government may exact its tribute on a property basis if it so chose, so the state government may exact its taxes on an income basis. To apply the same method to each unit, federal, state, and community by no means constitutes double taxation.

A state income tax need not interfere with the exaction of an inheritance tax which is now so successfully operated in several states. The theory dealing with inheritances holds that the beneficiary has not earned the income he receives and that the state may, therefore, justly exact a special tax. The theory has been generally upheld and the inheritance wherever imposed has yielded the state a substantial revenue. Nor need the state income tax disturb the corporation tax where such is applied to public utilities and corporations enjoying public franchises and special privileges.

Finally, it may be well, too, to ask whether the public will accept a state income tax. My observations, covering a period of many years,

SCHOOL PUBLICITY

If better schools are to be secured, better methods of placing the merits of the schools before the public are essential. Publicity is as important an asset to school administration as it is to business. Publicity should never become propaganda. It should be frank, honest, and open. The publicity must not seek to exploit the superintendent or individuals connected with the schools. It should be employed to advance the welfare of the schools to the end that children may enjoy better opportunities to secure an education.

The evangelist must have a gospel; the salesman, a commodity; the candidate, a platform; and the educator, a program. We must give the people the kind of schools they want, but we must lead them to want better schools. History does not record a single instance where the masses ever rose and demanded better things without having been moved by a militant leadership. Possibly the most effective weapon in moving the masses is well directed publicity. But intelligent publicity cannot be planned, if it is divorced from a program.—H. L. Donovan, Kentucky.

leads me to believe that the problem is primarily an educational one. The taxpaying public will readily divide itself into the affirmative and the negative. The business and professional interests, that enjoy substantial incomes, will oppose the tax. The landowner whose income is meager will favor the same. The cities with their commercial and industrial interests will see in it an added tax burden and stand out against the innovation. The farming element will see in it a relief from increasing burdens placed upon land.

The Trend of Educators' Judgment

In the range of taxation, and more specially under pressure for public funds, many expedients are proposed. This has been so since the beginning of civilization, and history records many strange devices for exacting tribute in support of government. But, in the evolution of fiscal policies certain devices have proved more acceptable than others, with the result that guiding principles have been established and world accepted fundamentals are at our command.

There are those, however, in every community that come forward with new devices and schemes for raising public revenue which are unsound in principle, inefficient in operation, and fruitless in results. Prominent educators have, in recent years, been guilty of proposing impracticable tax devices.

Some have seen the remedy in a local tax on outside corporations, movie theaters, soft drink parlors, and what not. Others have seen the solution in bringing the country's billions of tax-exempt securities under some form of federal and state tribute. It is not within the scope of my discussion to prove the futility of these several expedients.

At the same time, the most thoughtful and thorough discussions of the subject of school finance have been submitted at the hands of the American schoolmaster. Some of these schoolmasters have gone forth with admirable force and fearlessness in presenting the problem and pointing the way to a solution.

And wherever educators have made an exhaustive study of the school finance question,

THE OLD AND THE NEW

The old school would have the child perform a number of distasteful, uninteresting, and useless tasks as merely disciplinary measures. The new school will not manufacture difficulties for the children; it believes that every useful subject has difficulties enough and to spare. Subject matter is to be in the curriculum because of its intrinsic value and not for the purpose of formal discipline. The primary purpose of school must be to conserve the boys and girls.—George F. Dunkelberger, Waynesburg, Pennsylvania.

adhered to the fundamentals in taxation, and taken a comprehensive view of the situation in all its bearings, they have recognized income taxation as the proper means for disclosing new sources of revenue. They have discarded temporary and frivolous expedients, and have come to the conclusion that the one avenue open to an enlarged school support, and one that is both sound in principle and promising in results, lies in supplanting the deficiencies of the property tax with a state income tax.

School administrators have been accustomed to approach legislative for financial relief from the purely educational angle without deeming it necessary to give thought and study to the basic problem; namely, the subject of taxation. They have hitherto assumed that the question of finding additional revenues was solely within the province of the lawmakers and not for the school administrator. The lawmakers, however, have a right to look to those who propose intricate problems for such suggestions and recommendations as may lead to their solution. In fact, the progressive and wide awake legislator seeks and invites the judgment and counsel of his constituency in his efforts to reach sound conclusions.

If America's system of popular education is to continue upon the broadened scope and service to which it has dedicated itself, its champions must concern themselves with the agencies that make for sustenance and support. They must know something of the country's ability to pay, the fundamentals involved in exacting tax tributes, and the methods and instrumentalities of providing school support. It is only in an intelligent grasp of the whole subject that those who approach legislative bodies on remedial measures may hope to achieve desired results.

To come into this or any other state and lay down a comprehensive program for school support, or outline definitely the agencies to that end, would be as presumptuous as it would be impossible. Certain fundamentals may be advanced and the achievements of other states may be cited; but each state must find its own adjustments within the limitations and restrictions that confront it.

The constitutions, traditional laws and an entrenched public opinion constitute factors which must be dealt with in the advancement of innovations. The problem of school support in its broader aspects is practically the same in all states, while the solution hinges upon an observance of the same fundamentals. Those whom you bring to your service, therefore, can only point out certain general guide posts and suggest recognized expedients in finding the way out of a complicated situation. No outsider can consistently do more.

The mission entrusted into your hands is not only a great task, but a splendid privilege as well. It deals with the integrity and efficiency of popular education in a great state. There can be no finer expression of citizenship than that which concerns itself with the well-being of the rising generation and makes for the prestige, prosperity, and power of the great American Republic.

News Item: "The Georgia legislature may have very scrambled ideas about evolution, and some other things, but it is certainly clear on one thing—that the old-fashioned 'blue-backed speller' compiled by Mr. Webster is time-tried and well tested as a producer of persons who can spell the language they use. In Georgia it is now a law that this spelling book must be used in every public school in the state."

New Jersey's Accounting System for Public Schools

John S. Mount, Trenton.

The laws of the state of New Jersey place upon the State Board of Education the duty of prescribing a simple, uniform bookkeeping system, compelling its use in all school districts. There was provided in 1913, under this law, a uniform system far in advance of anything theretofore used. This system, together with the use of the prescribed reporting forms, enabled the school districts, counties, and the state as a whole to determine the per capita cost of education on the "functional" basis; viz., on administration, instruction, operation, maintenance, auxiliary agencies, and miscellaneous costs, producing results very similar to those called for by the U. S. Bureau of Education at Washington, but without giving costs by types of schools. The original charges, however, were not made on the "functional" basis but on the "fund" basis, thereby necessitating a rearrangement of the items for the annual report at the close of the school year.

This system, used successfully in every school district in the state, however large or small, indicates that it was indeed a simple system, but it soon became inadequate for the needs of the cities and larger borough districts. Consequently the cities, upon their own initiative, provided their own systems and records in order to secure the items of cost they desired. This resulted in considerable additional office work because the state system had to be kept also, and there were in these districts a number of accounting records, each different from the other. This condition resulted in provoking boards of education and their executives to deviate from the letter and sometimes from the spirit of the law in the conduct of the business of the schools. In nearly all of the city districts there was a lack of proper business organization of the work leading up to the bookkeeping system. Orders were issued by various officials in the organization, and the secretary, who is the board's auditor and bookkeeper, failed to get the amounts of these orders in his books until the bills were received. This caused the over-expenditure of appropriations. Boards of education did not know month by month where they stood in regard to the amount of unencumbered funds.

Objectives of the Accounting System

With the demand from the larger school districts for an adequate system, and with the purpose of correcting the unbusinesslike and illegal practices that had crept in, the State Board of Education requested the Commissioner of Education, through the office of the Business Manager, to revise the system. The main objectives in the revision were clearly expressed by the Commissioner of Education to the State Board when the revised system was submitted to them for their consideration, viz.:

(1) "That the intent of the law be carried out in each school district.

(2) "That the board of education be held strictly responsible for keeping within the appropriations granted to it by the people for the maintenance of the schools.

(3) "That the legal officers, acting directly under the supervision of the board of education, know their duties and be held responsible to the board for their performance.

(4) "That all orders carrying money obligations against the several accounts under the charge of the board of education go to the secretary or district clerk for signature before being placed with the vendors."

The resolution of the State Board under date of June 7, 1924, adopting the new forms and the directions for using them, also prescribed their use in all city districts "beginning July 1, 1924, and for use in an abridged form in all other districts beginning July 1, 1925." In addition to the cities, sixteen of the larger borough and township districts are now using it and about seventy more will use it next July. The abridged forms will be ready for use July 1, 1925, in the remaining 376 districts.

The system not only embraces new forms for the accounting but virtually defines the organization of the administrative and executive functions of the board of education in the directions accompanying the forms. The directions aim to be very complete. They prescribe forms of requisitions, purchase orders, auxiliary purchase orders, authorization for repairs, internal work orders, invoices, payrolls, advertisement for supplies, advertisement for sale of bonds, contracts for supplies, perpetual inven-

tories, the secretary's and custodian's monthly financial reports to the board of education, notices to and from board of school estimate, and notice for district appropriation. Frequent references to, and quotations from, the school law are also included.

Basis of the System

The basis of the system is the fundamental principle of all municipal accounting whereby the expenditure of funds shall not exceed the appropriation made therefore. In order to carry out that principle to the completion of the transaction, the following was especially provided to be used with the ordinary record of receipts and expenditures:

First, a carefully prepared detailed budget on which the appropriations are determined:

Second, that the charge against the appropriation shall be made when the obligation is incurred, and not days, weeks or months thereafter;

Third, that all money obligations shall be signed by the secretary before they leave the office, and that the charges be made from a duplicate thereof, which duplicate will be kept on file in his office;

Fourth, that all orders be issued only upon formal requisition duly approved by the proper supervising officer, and the authority of the board itself, with such exceptions as are provided by statute.

All accounting forms, including the budget, are 14"x17" standard loose leaf type, requiring only one binder and insuring great flexibility. The forms are numbered from A100 to A129, the prefix "A" being only a department character signifying "financial" forms.

The Budget Forms

The Budget, Forms A100 to A105. The budget forms contain all the items for which expenditure is to be made, and are listed by types of schools. Many of these items, therefore, are repeated since they appear in all types. These same items appear in the distribution of costs described later. They are to be used in estimating the amounts required for the operation of the schools during the next fiscal year. Columns for data pertaining to previous years are given in parallel, both as to number

BUDGET											
Line	Item	1924-25	1923-24	1922-23	1921-22	1920-21	1919-20	1918-19	1917-18	1916-17	1915-16
ADMINISTRATION											
GENERAL BUSINESS											
1	Salaries										
2	Expenses of Board of Education										
3	Secretary's Salary (1924)										
4	Secretary's Traveling Expenses										
5	Assistant Secretary's Salary										
6	Assistant Secretary's Traveling Expenses										
7	Secretary's Office Clerk Salary										
8	Secretary's Office Expenses										
9	Custodian's Salary										
10	Legal Services - Salaries and Expenses										
11	Administrative Expenses - Salaries, Salaries, Salaries										
12	Administrative Expenses - Salaries, Salaries, Salaries										
13	Comptroller										
14	Business Manager's Salary										
15	Business Manager's Traveling Expenses										
16	Business Manager's Office Clerk Salary										
17	Business Manager's Office Expenses										
18	Purchasing Agent's Salary										
19	Purchasing Agent's Traveling Expenses										
20	Purchasing Agent's Office Clerk Salary										
21	Purchasing Agent's Office Expenses										
22	State House - Salaries										
23	State House - Expenses										
24	Supervision of Buildings & Equipment - Salaries										
25	Supervision of Buildings & Equipment - Expenses										
26	Supervision of Buildings & Equipment - Clerk Salary										
27	Supervision of Buildings & Equipment - Expenses										
28	Supervision of Buildings & Equipment - Salaries										
29	Supervision of Buildings & Equipment - Expenses										
30	Supervision of Buildings & Equipment - Clerk Salary										
31	Supervision of Buildings & Equipment - Expenses										
32	Supervision of Buildings & Equipment - Salaries										
33	Supervision of Buildings & Equipment - Expenses										
34	Supervision of Buildings & Equipment - Clerk Salary										
35	Supervision of Buildings & Equipment - Expenses										
36	Supervision of Buildings & Equipment - Salaries										
37	Supervision of Buildings & Equipment - Expenses										
38	Supervision of Buildings & Equipment - Clerk Salary										
39	Supervision of Buildings & Equipment - Expenses										
40	Supervision of Buildings & Equipment - Salaries										
41	Supervision of Buildings & Equipment - Expenses										
42	Supervision of Buildings & Equipment - Clerk Salary										
43	Supervision of Buildings & Equipment - Expenses										
44	Supervision of Buildings & Equipment - Salaries										
45	Supervision of Buildings & Equipment - Expenses										
46	Supervision of Buildings & Equipment - Clerk Salary										
47	Supervision of Buildings & Equipment - Expenses										
48	Supervision of Buildings & Equipment - Salaries										
49	Supervision of Buildings & Equipment - Expenses										
50	Supervision of Buildings & Equipment - Clerk Salary										
51	Supervision of Buildings & Equipment - Expenses										
52	Supervision of Buildings & Equipment - Salaries										
53	Supervision of Buildings & Equipment - Expenses										
54	Supervision of Buildings & Equipment - Clerk Salary										
55	Supervision of Buildings & Equipment - Expenses										
56	Supervision of Buildings & Equipment - Salaries										
57	Supervision of Buildings & Equipment - Expenses										
58	Supervision of Buildings & Equipment - Clerk Salary										
59	Supervision of Buildings & Equipment - Expenses										
60	Supervision of Buildings & Equipment - Salaries										
61	Supervision of Buildings & Equipment - Expenses										
62	Supervision of Buildings & Equipment - Clerk Salary										
63	Supervision of Buildings & Equipment - Expenses										
64	Supervision of Buildings & Equipment - Salaries										
65	Supervision of Buildings & Equipment - Expenses										
66	Supervision of Buildings & Equipment - Clerk Salary										
67	Supervision of Buildings & Equipment - Expenses										
68	Supervision of Buildings & Equipment - Salaries										
69	Supervision of Buildings & Equipment - Expenses										
70	Supervision of Buildings & Equipment - Clerk Salary										
71	Supervision of Buildings & Equipment - Expenses										
72	Supervision of Buildings & Equipment - Salaries										
73	Supervision of Buildings & Equipment - Expenses										
74	Supervision of Buildings & Equipment - Clerk Salary										
75	Supervision of Buildings & Equipment - Expenses										
76	Supervision of Buildings & Equipment - Salaries										
77	Supervision of Buildings & Equipment - Expenses										
78	Supervision of Buildings & Equipment - Clerk Salary										
79	Supervision of Buildings & Equipment - Expenses										
80	Supervision of Buildings & Equipment - Salaries										
81	Supervision of Buildings & Equipment - Expenses										
82	Supervision of Buildings & Equipment - Clerk Salary										
83	Supervision of Buildings & Equipment - Expenses										
84	Supervision of Buildings & Equipment - Salaries										
85	Supervision of Buildings & Equipment - Expenses										
86	Supervision of Buildings & Equipment - Clerk Salary										
87	Supervision of Buildings & Equipment - Expenses										
88	Supervision of Buildings & Equipment - Salaries										
89	Supervision of Buildings & Equipment - Expenses										
90	Supervision of Buildings & Equipment - Clerk Salary										
91	Supervision of Buildings & Equipment - Expenses										
92	Supervision of Buildings & Equipment - Salaries										
93	Supervision of Buildings & Equipment - Expenses										
94	Supervision of Buildings & Equipment - Clerk Salary										
95	Supervision of Buildings & Equipment - Expenses										
96	Supervision of Buildings & Equipment - Salaries										
97	Supervision of Buildings & Equipment - Expenses										
98	Supervision of Buildings & Equipment - Clerk Salary										
99	Supervision of Buildings & Equipment - Expenses										
100	Supervision of Buildings & Equipment - Salaries										

BUDGET											
Line	Item	1924-25	1923-24	1922-23	1921-22	1920-21	1919-20	1918-19	1917-18	1916-17	1915-16
INSTRUCTION											
UNIVERSITY DIST											
J	Supervision - Salaries										
J	Supervision - Clerk Salary										
J	Supervision - Expenses										
J	Supervision - Other Expenses										
J	Instructional Program										
J	Teacher Salaries										
J	Textbooks										
J	Supplies										
J	Other Expenses										
CLERICAL DIST											
Supervision											
J	Supervision - Salaries										
J	Supervision - Clerk Salary										
J	Supervision - Expenses										
J	Supervision - Other Expenses										
J	New Teaching Program - Salaries										
J	New Teaching Program - Clerk Salary										
J	New Teaching Program - Expenses										
J	New Teaching Program - Other Expenses										
N	Manual Training Supervision - Salaries										
N	Manual Training Supervision - Expenses										
Instructional Program											
J	Teacher Salaries										
J	Textbooks - by Page										
J	Textbooks - Reference by Page										
J	Textbooks - Reference by Teacher										
J	Supplies										
J	Other Expenses										
N	Manual Training Teacher - Salaries										
N	Manual Training Supplies										
N	Manual Training Other Expenses										
OTHER DIST											
Supervision - Salaries											
J	Supervision - Clerk Salary										
J	Supervision - Expenses										
J	Supervision - Other Expenses										
J	New Teaching Program - Salaries										
J	New Teaching Program - Clerk Salary										
J	New Teaching Program - Expenses										
J	New Teaching Program - Other Expenses										
N	Manual Training Supervision - Salaries										
N	Manual Training Supervision - Expenses										

anticipated revenue, balance beginning, and subsequent appropriations, (numbers 1 to 18). The second section provides for the distribution of these appropriations to their respective funds so that a total of each (line 24) may be obtained in a permanent form as a part of the system, and convenient for transfer and use in the forms that follow. The third section, comprising the remainder of the page, is an ordinary columnar form in which the actual cash receipts are to be entered as received, first in the total column and then in the fund column or columns to which they may apply. Since all appropriations are due and payable to the custodian of school funds within the year for which they are appropriated, there should be no difference between the appropriations and cash receipts, with an occasional exception in certain state and federal contributions. "Anticipated revenue" is largely tuition income and as this income can be used in any fund, in the discretion of the board, the receipts should be placed in column "R" until such time as the board may direct their use. Columns for "debt service," "S," "T," "U," "V," are provided for districts other than cities. Cities include the necessary amount for debt service in their municipal budgets, thus relieving the necessity of boards of education keeping any account of these receipts or expenditures.

Cash and Contractual Accounts

Cash Expenditures Form A111. This form is an ordinary columnar page in which all warrants drawn for school expenditures are to be entered in numerical order. At the top of the first page on the line above the headings marked "Balance of Funds Available" will be entered the totals of the several appropriations as determined on line 24, form A110. The difference between these appropriations and the footings, whenever made, show the amount of the unexpended appropriations, which, of course, will be larger than the unencumbered balance unless every order or obligation has been paid. This balance, however, is not of supreme importance, but serves as a check upon the custodian. The custodian is provided with a bound columnar cash book with headings corresponding to those in forms A110 and A111. He is required to keep a record by funds of only the actual cash received and expended.

Contractual Orders Form A112. This form is provided for the purpose of charging the contractual orders against the appropriations by funds. The columns correspond exactly in title and letter designations with those in the preceding forms.

At the top of the first page on line "Balance of Funds Available" will be entered the totals of the several appropriations as determined on line 24, form A110. When the page is filled the totals of the order charges will be deducted from the appropriation amounts (Balance of Funds Available, at the top of the page, and the balance carried over to the top of the following page, and so on to the end of the year. The footings, will be cumulative, the grand total appearing on the last page. This method enables the book-keeper to determine at a glance at any footing, not only the total obligations charged against each fund, but also the all important thing, the unencumbered balance in each fund. This is the one financial fact the secretary and the board member need to know, but it is not available with any certainty where the accounts are kept on the cash payment plan.

Provision is also made through columns "A," "B" and "C" to post the warrants given in payment of the orders issued. These postings will necessarily not appear in numerical order. One

advantage of this is the detailed showing of all unpaid orders, and a proof check on the "balance available."

It will be understood, of course, that no order will be paid until a regular invoice is received,

duly audited and passed for payment by the board. Warrant forms are furnished the districts, which become sight drafts on the bank named therein after the warrant contains all the signatures required by law.

FORM A-114 FINANCIAL RECORD, SCHOOL YEAR 192-192 ADMINISTRATION All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	SUPERINTENDENT		ASSISTANT SUPERINTENDENT		CLERK AND ASSISTANTS		SUPERVISOR		STENOGRAPHER		RECORDS		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	275-0	275-1	275-2	275-3	275-4	275-5	275-6	275-7	275-8	275-9	275-10	275-11	275-12	275-13

FORM A114—FRONT.

FORM A-114 FINANCIAL RECORD, SCHOOL YEAR 192-192 ADMINISTRATION All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	SUPERVISORS		AUTOMOBILES AND TRUCKS		TEACHERS		TEXT BOOKS		OTHER		RECORDS		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A114—REVERSE.

FORM A-115 FINANCIAL RECORD, SCHOOL YEAR 192-192 INSTRUCTION All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	SUPERVISORS		TEACHERS		TEXT BOOKS		OTHER		RECORDS		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A-115.

FORM A-116 FINANCIAL RECORD, SCHOOL YEAR 192-192 INSTRUCTION (PROPER) All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	TEACHERS		TEXT BOOKS		OTHER		RECORDS		OTHER		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A116—FRONT.

FORM A-116 FINANCIAL RECORD, SCHOOL YEAR 192-192 INSTRUCTION SUPERVISORY All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	SUPERVISORS		NON-TEACHING PRINCIPALS		MANUAL TRAINING SUPERVISORS		OTHER		RECORDS		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A116—REVERSE.

FORM A-117 FINANCIAL RECORD, SCHOOL YEAR 192-192 OPERATION All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	JANITORS, ENGINEERS AND FIREMEN		OTHER		RECORDS		OTHER		OTHER		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A117.

FORM A-118 FINANCIAL RECORD, SCHOOL YEAR 192-192 MAINTENANCE All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	REPAIRS AND REPLACEMENTS		EQUIPMENT		OTHER		RECORDS		OTHER		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A118.

FORM A-119 FINANCIAL RECORD, SCHOOL YEAR 192-192 CO-ORDINATE ACTIVITIES All Types of Schools														
CONTRACTUAL ORDERS														
Order Number	ATTENDANCE OFFICER		MEDICAL INSPECTOR		DENTAL INSPECTOR		NURSE SERVICE		OTHER HEALTH ACTIVITIES		OTHER		OTHER	
	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund	Salary	P. & A. Fund
1	280-0	280-1	280-2	280-3	280-4	280-5	280-6	280-7	280-8	280-9	280-10	280-11	280-12	280-13

FORM A119.

The Appointment and the Tenure of Teachers¹

Floyd T. Goodier, Chicago Heights, Ill.

While the statistics used in this discussion refer to the entire state of Illinois, the topic is being considered largely from the point of view of cities large enough to have a superintendent but not sufficiently large to be covered by special legislation; roughly, cities ranging in population from three or four thousand to one hundred thousand.

Theory and practice alike in the field of school administration agree that teachers should be appointed by the board of education only upon the recommendation of the superintendent of schools, their chief executive officer. Many authorities strongly recommend a relatively small board of education, without standing committees. Where a board has a school management or teachers' committee, the superintendent will naturally make his recommendations to this committee, and later the board will be asked to ratify the action of the committee. In case the committee or board has information which leads it to reject any recommendation of the superintendent, the committee or board should not substitute another name for the one not selected but should ask the superintendent for a second recommendation. Only when the superintendent refuses to make a recommendation, should the board take the initiative in the matter.

The reasons for this form of procedure are at least three.

First, if the board has chosen its superintendent wisely, they have secured for the head of the school system a person trained in school administration. In no other one duty ought the superintendent to be more scrupulous in the exercise of this training than in the choice of his co-workers. His intimate contact with the schools gives him first-hand information upon the requirements of each position, his experience with teachers makes him skilful in the detection of those personal qualities which are so necessary in a good teacher, and his contact with other school systems, with institutions for the training of teachers, and with teachers' agencies, gives him the knowledge of where to look for the best teachers. The lay members of a board of education cannot be expected to have the training necessary for the task. Even if they had the training, they are not in a position to give the time and thought which the task requires.

Second, a school system to be successful, must have an esprit de corps, a morale, based upon cooperation and loyalty to the best interests of the children. It must consist of a group of workers willing to enter whole-heartedly into the plans and policies advanced by those in the executive and administrative positions. One of the surest ways to secure a harmonious organization is to have it thoroughly understood among all the members of the group that positions are filled only upon recommendation of the superintendent, the one at the head of the organization.

Third, modern educational practice holds the superintendent responsible for the conduct of the schools, and for securing results which compare favorably with those secured in similar communities spending like sums of money for education. But manifestly, it is most unfair to hold the superintendent responsible to the board and community unless he is given the opportunity to determine the personnel of the organization through which his plans and policies are to be carried out.

¹An address before the Illinois State School Board and Superintendents' Association, Peoria, Oct. 30.

In the report of the Survey of the Public Schools of Portland, Oregon, page 46, Prof. Cubberley of Leland Stanford University says—"The selection of teachers is the work which the board of education knows least how to handle; the work where they make the most serious blunders; the work where they create the most bitter antagonisms; and the work which they ought to let alone."

Principles in Recommending Appointments

The superintendent should base his recommendations upon the following general principles:

1. The children of the schools under his supervision deserve the best teachers which the money available will provide. Incidentally the superintendent ought to be sure that the budget is not slighting the item of teachers' salaries. This is not the best place in the budget to practice economy.

2. The schools do not exist to give positions or jobs to anyone.

3. Teachers should be secured on the basis of merit alone without regard to personal affiliations or home address.

4. There is a danger from "inbreeding" if too many local teachers are employed. Many of the school surveys made in the last decade emphasize this point.

Nothing that has been said is meant to imply that the superintendent will be a dictator in the matter of appointing teachers. He should at all times seek to keep his board members thoroughly conversant with the work of the schools, should confer with them individually and collectively in regard to teachers as well as other school affairs, and should capitalize any information or suggestions which the members of the board may be able to make in regard to new teachers. It is not fair to the intelligence and judgment of the members of our boards of education to ask them to place their O. K. upon appointments when they are given no information in regard to applicants and no reasons why certain recommendations are being made. Mistakes in appointments will be made. The more advance information the board members have had in regard to applicants the less will the censure fall upon the superintendent and the more likely will the board members be to excuse the mistakes.

Tenure in Illinois

In order to consider intelligently the question of tenure, a few statistics need to be presented.

According to the report of the State Superintendent of Public Instruction, the number of public school teachers in the state of Illinois for the year ending June 30, 1923, was 41,623. Of these 15 per cent were teaching their first year, those teaching for their first, second, and third years equalled 39 per cent, and those who had taught for not more than five years totaled 54 per cent. Or, expressed in another way, only 46 per cent had taught more than five years. Also 33½ per cent were serving their first year in the district where they were employed, 60 per cent had been in the district where they were then teaching not more than three years, and 70 per cent not more than five years. This means that only 30 per cent of the teachers of Illinois for 1922-23 had remained in the districts where they were then teaching for more than five years.

No argument is needed to convince anyone interested in the cause of the public schools that these figures present a very serious situation. A president of one of the leading teacher-train-

ing institutions of the country is wont to tell graduates of his school that they are fortunate in not having to pay school districts for the privilege of teaching the first year after graduation as they are a liability to the system for a year and begin to be of value only the second year. While we probably feel that this statement is an exaggeration, we do know that any teacher, provided of course she is a good teacher, steadily increases her worth to a school system through permanency of tenure. As she becomes acquainted with the policies of the school system, gains familiarity with the course of study, identifies herself with the community through her personal acquaintanceship, and her membership in various social groups, she is prepared to exercise real leadership in the educational program.

A few additional statistics will be introduced as throwing more light upon the general question of tenure in Illinois.

Of our 41,623 teachers of 1922-23, a group of 609 had no training beyond an eighth grade education, 1,077 had attended but had not been graduated from high school and 11,130 were high school graduates only. A total of 12,816 or 30 7/10 per cent had no training for the work of teaching beyond that received in a high school course. Allowing only ten children to a teacher, more than 125,000 children of the state were receiving their school instruction at the hands of this untrained group.

Also, 36 4/10 per cent of the teachers of this year received salaries of less than one thousand dollars a year. Possibly some one can tell us whether the low salaries are to blame for the large number of teachers without adequate training or whether the untrained teachers keep the salaries low. It may be that the two facts are merely concomitants without any cause and effect relationship.

Reasons for "Turn Over"

Why have we such a large annual "turn-over" of teachers in Illinois?

For the purpose of this discussion, the causes are grouped under three headings.

First, there are the teachers who give up teaching voluntarily to do other things. This includes those who become home-makers, enter business, take up nursing, settlement-work, etc.

Second, those who change school systems to better themselves. The improvement may be in salary, social conditions, location, etc.

Third, those who fail at reelection.

The second group need not enter further into the consideration of our problems. Most of us who are in educational work like to surround ourselves with ambitious, growing teachers. If such teachers cannot be recognized by promotions within a school system, they owe it to themselves to seek positions in other localities which offer more attractive inducements. Superintendents and boards of education ought to accept the situation and understand that ability has a right to be rewarded. If the teacher deserves a better place than they can offer her, they ought to help her secure the promotion elsewhere.

Some teachers of the first group ought not to be retained in the service. Some find themselves unfitted by temperament or interest for the vocation of teaching and wisely seek their life-work in other fields. Possibly in the future a larger per cent of these will be located while attending teacher-training institutions and early advised to give up teaching for other kinds of work.

Also some of this group very properly leave the service to become home-makers. Their teaching experience, however brief, has better fitted them for motherhood and for serving the schools later as more intelligent members of the communities where they live.

The Salary Problem

But, I am sure we are agreed that of the large number of teachers—among whom are many men—who are giving up teaching, many are fitted by temperament and training for the work of the schools. These leave the schools poorer because of their withdrawal and ought to be retained in the work of the schools, and they can be retained by making the work more of a profession. When we seriously reflect upon the training, or rather lack of training, of many of our teachers and when we compare their salaries with those of other groups of workers, we may well ask ourselves whether we have any right to use the term "profession" when referring to teachers.

Do we actually believe that spiritual values in life are greater than material values? If we do believe this, it is high time that we raised the standards for entrance to the profession of teaching, and that we overhauled the taxing system of our state to enable all the districts of the state to provide something better than a mere living wage to the men and women who are shaping the characters of the adults of the next generation. With the purchasing power of a dollar where it is today, what can we expect in the way of culture from a teacher receiving a salary of seven or eight hundred dollars a year? What can she buy in the way of books and magazines? How many lectures, concerts, and plays can she attend? What educational gatherings can she enjoy? To what educational organizations can she belong? How many weeks of study or travel can she plan for the summer? It is no wonder that many of the most talented and most ambitious of our young men and women who engage in the work of teaching give it up in disgust deciding that the returns are in no way commensurate with the demands of the service.

The Tenure Problem

The third group, those who leave the profession to change systems because of failure to be reelected, has been the basis of much agitation in relation to tenure, in Illinois as in other states. In 1921, a committee of the N. E. A., Miss Charl Williams, chairman, reported that in 528 cities of the U. S. ranging in size from 5,000 to 30,000 in one year 975 out of 21,000 or 4½ per cent were not reelected. In theory, failure of reelection means that the teacher has not succeeded and that those in charge of the school system feel that a change in teachers will be a benefit to the system. If this were always the case and if the teacher were always treated professionally during the time of her contract and if the method of procedure in the case of a teacher not to be reelected were always strictly professional, perhaps this agitation would never have developed. To the shame of superintendents and boards of education, the argument is not always against the teacher. Inexperienced teachers do not always receive the sympathetic, helpful supervision which they have a right to expect; those who are failing in their work are not always given notice that their work is unsatisfactory; teachers sometimes do not know until the close of the school-year that their services will not be required for another year. Also teachers are dismissed because of the prejudices of superintendent, board members or influential families in the community, because of their political or church affiliations, and for other reasons not connected with their efficiency in the classroom or with the school system as a whole.

Features of Tenure Laws

A remedy for the situation which is being tried in a few states and which has been proposed for Illinois is a Tenure Law which seeks to protect the teacher from unjust dismissals.

The principal features of present tenure laws are:

1. A probationary period from one to three years in length.
2. After the probationary period a teacher to be dropped only for certain specific causes which usually are:
 - a. Immoral or unprofessional conduct.
 - b. Incompetency.
 - c. Evident unfitness for teaching.
 - d. Persistent violation of or refusal to obey state laws.
 - e. Violation of or refusal to obey reasonable rules and regulations prescribed by the government of the schools.
 - f. Neglect of duty.
3. Charges against teacher to be made by superintendent in writing.

4. A hearing before the employing board at which hearing teacher may have legal counsel and may summon witnesses.

5. In case the board sustains the charges of the superintendent and the teacher is dismissed, an appeal to a court of law or to the State Superintendent of Public Instruction.

In spite of the safeguards which the framers have attempted to place around these tenure laws, the laws have not operated to the best interests of the schools.

The work of teaching is not comparable to that of the policeman and fireman and the attempt to judge the efficiency of a teacher by legal procedure has failed. In reality the trial of a teacher whom the superintendent recommends for dismissal becomes one against the superintendent. The attorney for the teacher creates a bad situation for the superintendent and board and frequently manipulates matters until the decision hinges upon a technicality rather than upon any issue of the teacher's value to the school system. The school system receives much unfavorable publicity, the people of the community take sides, the case is postponed from time to time, and the school children are the ones who suffer. Regardless of the outcome, it takes weeks if not months for the wounds to heal, and for the school system to get back to its normal status.

The Dangers of Tenure

Prof. Cubberley is authority for the statement that because of the reasons just mentioned



THE SEASON'S GREETINGS TO YOU!

One of the finest privileges in a Christian land consists of the good will that radiates so splendidly on occasions and that is so generously conferred and shared by all. Man turns from his sordid occupations to consider the welfare and happiness of his fellow man. He becomes momentarily unselfish, and is lifted to the realm of an ideal.

The Christmas spirit is an expression of the nobler impulses that are either latent or active in all of us. The simple story of the Christ-child becomes a powerful incentive. It conquers the baser tendencies of man and gives play to his better nature, his finer sensibilities, his loftier aims.

Thus, we step aside from our daily cares and activities to give thought and consideration for others and to add something to their happiness and wellbeing.

It is in this spirit that we send greetings to all our patrons and friends. Let these printed lines tell you that behind them may be found a clear voice, a hearty handshake, and warm hearts that wish you a Merry Christmas and a Happy New Year!

teachers who have passed the probationary period are practically never dismissed in districts under the tenure laws, and he cites San Francisco and Baltimore as good illustrations. In his "Public School Administration," page 215, Cubberley summarizes his discussion of legislation looking toward permanent tenure with these words: "If our purpose is to develop a self-satisfied and an unprogressive teaching force, to ruin our American public Schools and eventually to turn education, for those who can afford it, over to the private and parochial schools to handle, leaving public schools to minister to the needs only of the poorer and more ignorant classes, then life tenure laws for teachers and principals is one of the surest means for doing this. So large and so important a public business as education—where personal growth is so necessary to meet changing needs—cannot be successfully conducted on such a basis of employment."

As the quotation from Cubberley implies, another question in regard to permanent tenure, is its effect upon the continued growth of teachers. Methods of teaching are under constant revision. No school system can afford to retain teachers who are not interested in new ideas in education and in revising their methods in the light of the best current theories. But it seems to be a part of human nature to "fall into a rut" and to continue a method of procedure rather than to try new methods. One of the chief problems of a superintendent is to promote the growth of teachers in service. Every superintendent has found that in certain cases only the spur of a desire for reelection produces results.

Without resorting to tenure legislation, it ought to be possible to meet the demands of those who are dissatisfied with present conditions. The following suggestions are made as a basis for meeting the situation:

Insuring Success

1. A teacher upon her first employment in a school system ought to be placed where she will have the largest chance for success.
 2. The administration of the school system should be sure that the supervision of the teachers is more than mere inspection. A teacher has a right to helpful supervision.
 3. If a teacher's work the first year with helpful supervision is unsatisfactory but not a complete failure, she ought to be given a second chance. If a change in buildings and grades is possible, it should be carefully considered. A superintendent should take pride in being at the head of a school system which helps weak teachers develop into strong teachers, rather than one where every weak teacher is dropped without a second chance.
 4. If a teacher cannot succeed with help, she should be given early warning of a probable failure of reelection.
 5. After two or three years of continuous service in a school district, the teacher should understand that she will be reelected from year to year unless she receives definite information that her work is not satisfactory. Some school systems require each teacher to make formal application for reelection each spring. Such a practice is little less than an insult to a successful teacher who has served the school system for several successive years.
- If these provisions which are submitted as professional and ethical were generally followed, much of the agitation regarding tenure legislation would undoubtedly disappear. If these provisions are repeatedly violated, boards of education and superintendents will have only themselves to blame if they find themselves compelled to conduct the school with teachers who have a practical life tenure, no matter how detrimental such a condition may be to the best interests of the children of the state.

Educational Ranking of States by Two Methods

Frank M. Phillips, Ph.D., George Washington University.

I. By the Method of Index Numbers

The Russell Sage Foundation published a monograph in 1920, by Leonard P. Ayres, entitled "An Index Number for State School Systems." The data used were taken largely from publications of the United States Bureau of Education although the Bureau took no responsibility whatever in applying these data to a method of obtaining an educational ranking of states. The data are available for the public and represent only one attempt of the Bureau in disseminating free to the public such information as it has been able to gather from time to time.

In this study, data were tabulated covering ten points which are purely non-personal and which have to do chiefly with school attendance and school costs. These points are as follows:

1. Per cent of school population attending school daily.
2. Average days attended by each child of school age.
3. Average number of days schools were kept open.
4. Per cent that high school attendance is of total attendance.
5. Per cent that boys are of girls in high schools.
6. Average annual expenditure per child attending.
7. Average annual expenditure per child of school age.
8. Average annual expenditure per teacher employed.
9. Expenditure per pupil for purposes other than teachers' salaries.
10. Expenditure per teacher for salaries.

In arriving at the index number, Colonel Ayres selected 100 as a perfect score for item 1 which indicates that all children of school age should have perfect attendance at school. Two hundred days were selected as the proper length of the school session and item 2 was divided by two to get the proper index for average days attended. Item 3 was likewise divided by two to get the proper index for length of session. Leaving out of consideration growth of population, one-third of the pupils should be in a high school if there are eight years in the elementary school course and four years in the high school course. Accordingly, item 4 was multiplied by three in those States having an 8-4 plan and by 2.75 in those States operating on the 7-4 plan. Conceding an equal division of the sexes there ought to be an equal number of boys and girls in the high school. Item 5 was taken therefore without any further computation.¹ These first five items have to do with the attendance, and with only minor exceptions and few possibilities could not exceed 100 as an index number for each item.

The five remaining items have to do with expenditures. In considering an index number for item 6 it was conceded that an average annual expenditure of \$100 for each child in average daily attendance should be given a perfect score of 100. Likewise item 7 would have this same index for a perfect score because all children of school age would be in average daily attendance if items 1 and 2 received perfect scores. In considering an index number for item 8, an expenditure of \$200 per month for each teacher employed was considered a perfect score. The data obtained then under item 8 was divided by twenty-four in order to get the index number. Item 9 was considered perfect

if as much as \$50 per year were spent for purposes other than salaries, for each child in attendance. Data obtained under item 9, then were multiplied by two in order to get an index number for this item. Teachers' salaries were considered perfect if they averaged \$100 per month for each twelve months of the year. The monthly salary obtained under item 10 was taken as the index number for this item. These five financial items could, in a great many instances, exceed the amount estimated as being perfect for this particular index number system.

The sum of these ten indices was then divided by ten to get the index number of a particular state for a given year. Colonel Ayres obtained indices by states for 1890, 1900, 1910, 1916, and 1918. It was not expected that these financial items would exceed a perfect score at the time this index number system was first used. The index numbers at no time exceed 76 although one of the relatives entering into this index was as high as 115. Only 2 relatives exceeded 100.

At Colonel Ayres' suggestion the writer undertook to apply this system to data collected from states in 1922. Table 1 shows the results. It will be observed that one state ranks very much in excess of 100 for the final index, while more than three score of the relatives are above 100. It was not the intention nor the expectation that states would rank as high as 100 even though the ranking system permitted of this possibility. It is partially with this in mind that an attempt is made here to apply the purchasing power of the dollar as a factor in computing relatives for the financial items used in the monograph published by the Russell Sage Foundation. This plan is discussed in the earlier publication, but it was considered impractical to use it at that time.

After considerable study it was thought best to apply the cost of living index as published by the Bureau of Labor Statistics to these five financial items for certain years and in that way revise and bring up to date the Ayres System of ranking states educationally. As the cost of living index is given by three months periods, it was thought best to use the December index as it is more nearly in the middle of the school year under consideration. Items 6 to 10, then, have been divided by 1.743 in 1922, 1.933 in 1920, and by 1.424 for the data selected for 1918. The cost of living index has not been computed for the years previous to 1913, which year has been taken as a basis. After careful consideration and consultation it was thought best to use the index number for retail prices of food for years previous to this basic year. The financial items for 1910 were then divided by 0.930.

Table 2 gives this revision for 1910, table 3 for 1918 and table 4 for 1922, and these tables present the revision of the tables published in the monograph in 1920. It will be noted that there are some changes in the rankings of states each year, from those reported in the earlier monograph, but that there have been no radical changes made in the ranks any particular state received either under the original method of ranking or under the adjusted method. For 1910 the total change is 7 points, for 1918 it is 34 points, for 1920, 64 points, and for 1922, 38 points, the change in points varying according to size of cost of living factor. Only 11 states have had a change in rank of more than 2 places in those four different years. Table 5 gives both sets of rankings.

The index numbers for the United States as a whole for these four years, are shown in the following tabulation:

Year	Original	Revised
1910	42.41	43.55
1918	51.01	44.34
1920	59.42	44.73
1922	74.50	57.15

The better increase is shown by the original system since there is an increase from 42.4 to 74.5 in twelve years. Much of this increase, however, may be due to increasing costs, with decreasing purchasing power. There is no argument in rating educational systems high just because they cost more. It is highly probable that the revised indices show the improvement more accurately. The increase is from 43.6 to 57.2 in twelve years, a more modest increase than that shown by the original method, and these indices show that there is still much room for improvement if the schools are to be judged by these standards. While this revision does not change materially the state ranks, it does smooth out the indices.

For the purpose of reference, state ranks for 1920 are given in table 6 by the original method, and in table 7 by the revised method.

Much has been said and written, both favorably and unfavorably, concerning the Ayres method of ranking states educationally. Some object to any sort of ratings, some find fault with making one-half of the points financial, some with the ratio of 24 pupils to a teacher, while some think the publication has been of great value in showing just what states spend for schools. States finding themselves at the bottom of the scale in expenditures have an argument for greater appropriations. On the other hand, it is quite likely that some of the states at the top of the list may have decided that they were paying too much for education, and may have used the argument for a reduction in educational expenditures.

Objections have been raised to any system that made a comparison between states that have a large city population, with those having a population mostly rural. The District of Columbia, for example, is chiefly the city of Washington, while Nevada, as another example, has more than 80 per cent of her population outside of cities, and besides that, a density of less than one person per square mile. With this in mind a ranking has been made for 1922 of states that have similar distributions of population.

States with 60 per cent and over of the population urban are assigned to Group I, those with 30 per cent and over but less than 60 per cent urban are placed in Group II, and those with a population under 30 per cent urban in Group III of the urban groups. Those having a density of 100 or more persons per square mile are placed in Class I, those with a density of 30 or more but less than 100 in Class II, and those with less than 30 in Class III of the density groups. Those belonging to Group I and Class I, those in Group II and Class II, and those in Group III and Class III, are also ranked. These groups are ranked in table 8 for the benefit of those who may desire to make comparisons between states that have a common quality of distribution of population as to urban and rural.

Whatever else may be said, the system is an attempt to look at the matter scientifically, and to use facts rather than mere opinion in reaching a conclusion. It gives a ready and concise view of just how the states stand, when particular items of attendance and cost are considered. One sees at a glance what he may conclude only

¹In 1922, five States report more boys than girls in the high schools.

TABLE 8.—RANK OF STATES, ACCORDING TO DISTRIBUTION OF POPULATION, 1922.

Rank	Urban Groups			Density Classes			Both Divisions		
	I	II	III	I	II	III	I	II	III
1	California	Washington	Nevada	New Jersey	Indiana	California	New Jersey	Indiana	Nevada
2	New Jersey	Indiana	Wyoming	Ohio	Michigan	Washington	Ohio	Iowa	Idaho
3	Ohio	Arizona	Idaho	New York	Iowa	Nevada	New York	Wisconsin	South Dakota
4	New York	Montana	South Dakota	Massachusetts	Wisconsin	Arizona	Massachusetts	Vermont	North Dakota
5	Michigan	Iowa	North Dakota	Illinois	Vermont	Montana	Illinois	Missouri	New Mexico
6	Massachusetts	Nebraska	New Mexico	Dist. of Columbia	New Hampshire	Nebraska	Dist. of Columbia	Louisiana	Oklahoma
7	Illinois	Minnesota	Oklahoma	Connecticut	Missouri	Minnesota	Connecticut		
8	Dist. of Columbia	Utah	West Virginia	Rhode Island	West Virginia	Wyoming	Rhode Island		
9	Connecticut	Colorado	Virginia	Pennsylvania	Virginia	Utah	Pennsylvania		
10	Rhode Island	Oregon	North Carolina	Delaware	Louisiana	Colorado	Maryland		
11	Pennsylvania	Kansas	Arkansas	Maryland	North Carolina	Idaho			
12	New Hampshire	Wisconsin	Tennessee		Arkansas	South Dakota			
13	Maryland	Vermont	Alabama		Tennessee	Oregon			
14		Delaware	Georgia		Alabama	Kansas			
15		Missouri	Kentucky		Georgia	North Dakota			
16		Maine	Mississippi		Kentucky	Maine			
17		Texas	South Carolina		Mississippi	New Mexico			
18		Louisiana			South Carolina	Oklahoma			
19		Florida				Texas			
20						Florida			
Average Index	65.00	59.38	46.93	62.96	53.09	61.21	53.09	58.22	58.53

after much study and effort. The Bureau of Education has been censured at times because it allows its data to be used in ranking states. The published materials of the Bureau, however, are generally considered to be public property, and somewhat subject to such individual computations and interpretations as those who choose to use the figures may see fit to assign to them.

II. By the Method of Ranks

States may be ranked educationally, as well as in other matters, in a variety of ways. Controversy generally arises over the content of the material rather than over the method of treatment. An attempt is made here to show state ranks in each of ten points, and to show how each state ranks when the ranks in these ten items are added. The points selected are as follows:

1. Percentage of illiterates ten years of age and over.
2. Ratio of number of children in average daily attendance to number 5 to 17 years of age, inclusive.
3. Percentage of attendance in high school.
4. Average number of days attended by each child enrolled.
5. Average number of days schools were kept open.
6. Ratio of number of students taking normal training courses to number of teaching positions.
7. Percentage of high school graduates continuing their education.
8. Total cost, excluding salaries, per pupil in average daily attendance.
9. Average annual salary of teachers, principals, and supervisors.
10. Total amount expended per child of school age.

Four of these points deal with school sessions and attendance, three with preparation and results, and three with school costs. The material is furnished, for the most part, by the Bureau of Education, but the Bureau takes no responsibility in the use of its materials in this way, other than to vouch for its accuracy.

1. Illiteracy.

The data for illiteracy are gathered by the United States Bureau of the Census every ten years. The Census Bureau defines an illiterate as one who is unable to write any language regardless of ability to read, representing persons who have had no schooling whatever. There are plenty of arguments for charging illiteracy to the school systems of the states. Of the 4,931,905 illiterates, ten years of age and over in the United States in 1920, 3,084,733 were native born, not including 61,730 illiterate Indians. Of the 13,497,886 foreign born whites ten years of age and over, 999,166 were of school age and 56,595 of school age were illiterate. Of the 12,498,720 foreign born whites twenty-one years of age and over, a great many must have arrived in the United States while still of school age.

It is a safe estimate then that more than two-thirds of our illiterate population are or have been counted in our school census. To eradicate illiteracy in the United States seems to be largely the business of the public school.

2. Children in average daily attendance.

The states do not report statistics showing the number of children five to seventeen years of age who attend school daily. It is not possible, therefore, to furnish figures giving the percentage of this age group in average daily attendance.

The United States Census Bureau makes estimates of the number of children five to seventeen years of age inclusive in each state. States report average daily attendance without any age description. It is possible, therefore, to represent a ratio between the number of children in average daily attendance and the number of school age. These figures are sometimes expressed in percentages, but are best represented as ratios because the data do not represent wholes and parts of identical items. The figures representing item 2 are given then in ratio form.

3. Percentage of attendance in high school.

The states as a rule gather statistics showing the enrollment in elementary grades and in high school grades. Until the advent of the junior high school a percentage of enrollment in the high school was procured without much difficulty. The figures included in this item, however, represent as nearly as possible a high school course including only the four years of secondary work and do not include students in junior high schools below the recognized high school freshman class.

4. Average number of days attended.

This item shows the average number of days attended by all pupils enrolled without taking into consideration the length of the school day, whether or not some students are attending part-time, or the various definitions of enrollment used by the different states. The fact that there is no standard definition of enrollment renders it necessary to use with a great deal of caution, all percentage based upon enrollment especially if they are used for comparative purposes. At present, however, there is no substitute for determining comparative costs, and completeness of attendance.

5. Length of session.

This item represents the educational opportunity offered by each state in that it shows the average number of days the schools of each state were kept open.

6. Students in teacher-preparing courses.

Most of the states have, in either public normal schools or teachers' colleges, some system of training for the work of teaching. The states also report the number of teaching positions in the public elementary and secondary schools of the state. It is possible to show then the efficiency of the state in preparing teachers

for these positions. In arriving at a ratio between the number of students taking normal training courses and the number of teaching positions, only students in such courses in public teacher training institutions have been included. Teachers' colleges which are a part of a university, or departments of education in colleges and subsidized private normal schools have not been included. Students have been included only from state teachers' colleges, state normal schools, county normal schools, and city normal schools, and only those taking teacher-training courses. The ratio then expresses the portion of the teaching positions that the states are taking care of each year in preparing new teachers for vacancies that may occur.

7. High school graduates continuing their education.*

The materials used in getting these percentages are not obtained from state reports, but from reports sent in by the high schools themselves. Each high school reports the number of graduates for the preceding year, and the number of those graduates that enter college or some other higher institution of learning. The data do not include students that enter schools for the first time during the second or subsequent years after graduation. As the system of reporting is about the same in each State, it is quite likely that these items are readily comparable.

8, 9, 10. Average costs.

Item 8, is an attempt to get the average cost per pupil in average daily attendance for all expenditures not including salaries of teachers, principals, and supervisors. Item 9 includes only the salaries of teachers, principals and supervisors and gets an average annual salary per teacher, principal, and supervisor. Item 10 includes all school costs excepting amounts expended for debt service and gives the per capita amount expended by each state during the year for each child of school age, that is 5 to 17, inclusive.

Tables 9, 10, 11 and 12 furnish the data for 1910, 1918, 1920, and 1922 for the ten items enumerated in the preceding paragraphs. Tables 13, 14, 15, and 16 furnish the state ranks in these ten items for the years indicated. It is possible to see how each state ranks in each of the ten points, and to see what the rank is when the ten ranks are added. It is possible to exclude any one or more points, and make a ranking upon the remainder. When all points are included, the rank is given in the last column of tables 13 to 16.

III. A Comparison of the Two Methods

Table 17 gives the state ranks for 1910, 1918, 1920, and 1922 by the revised Ayres, or index method, and by the method of ranks. The results are pretty much the same. In 1910, five states have the same rank by both methods. In

*For 1910, number of students preparing for higher institutions is used.

TABLE 1.—EDUCATIONAL DATA FOR 1922—ORIGINAL METHOD.

STATES	Average number of days actually in school by each child 5-18	Per cent of children 5 and under 18 in average attendance	Average number of days schools were kept open	Per cent of attendance in high school	Per cent of boys to girls in high school	Total expenditure per child in average attendance	Total expenditure per child 5 years and under 18	Total expenditure per teacher and principal	Expenditure for other than salaries per child in attendance	Average monthly salary per teacher	Index number 1922	Rank 1922
Continental U. S.	65.3	64.4	82.0	36.9	89.17	85.76	55.21	91.04	78.08	97.16	74.50	12
Alabama	47.9	54.8	65.4	22.0	85.36	29.53	16.19	38.02	20.10	50.17	42.94	46
Arizona	65.5	52.9	85.0	34.2	89.96	138.38	73.26	129.97	138.48	129.80	90.75	8
Arkansas	47.1	63.2	65.2	21.0	99.84	24.02	15.18	39.31	10.44	61.50	44.67	44
California	63.0	80.3	89.5	81.3	99.80	158.45	127.26	158.75	163.10	154.08	117.55	1
Colorado	61.6	70.0	87.1	48.6	87.40	113.64	79.57	85.90	104.18	92.25	83.02	19
Connecticut	76.1	68.2	92.2	40.2	87.99	91.10	62.13	103.11	73.30	123.25	81.75	22
Delaware	68.8	56.2	90.1	35.4	89.30	82.55	46.37	78.61	58.66	101.33	70.73	30
Dist. of Colum.	74.6	72.4	89.0	47.4	81.20	98.23	71.09	103.35	78.94	123.66	83.98	17
Florida	51.6	62.9	67.9	22.2	74.38	54.07	34.01	58.76	59.28	52.91	53.79	41
Georgia	51.3	55.8	70.0	20.4	88.08	25.22	14.08	33.65	14.82	47.58	42.09	47
Idaho	66.5	71.7	84.5	46.2	85.88	101.94	73.09	98.18	92.38	97.58	81.79	21
Illinois	76.5	65.8	90.2	39.3	92.54	97.41	64.08	109.40	89.02	118.83	84.31	16
Indiana	68.9	68.9	81.9	49.2	95.07	127.25	87.68	125.95	148.20	105.25	95.03	4
Iowa	71.8	72.6	80.4	78.0	89.75	113.48	82.33	71.01	102.54	77.83	84.86	15
Kansas	67.6	72.7	82.5	52.5	81.17	101.00	72.47	78.63	90.12	87.08	78.67	24
Kentucky	46.2	60.4	62.5	17.7	74.07	32.96	19.93	42.44	18.78	60.66	43.56	45
Louisiana	56.2	52.2	74.3	22.8	67.97	55.75	28.99	64.42	46.16	75.50	54.40	40
Maine	75.2	69.4	87.0	51.6	85.01	65.01	45.14	56.30	54.92	65.00	65.45	35
Maryland	71.7	53.9	90.7	23.7	84.40	74.43	40.15	82.83	59.68	99.25	68.06	33
Massachusetts	74.6	63.8	90.0	49.2	95.40	99.08	63.21	107.94	74.44	134.75	85.24	14
Michigan	77.8	61.8	97.1	40.2	78.05	128.23	79.21	114.36	141.64	102.42	92.17	9
Minnesota	71.3	70.9	84.8	40.5	79.07	116.99	82.94	97.74	122.98	92.75	86.08	12
Mississippi	47.4	65.6	68.4	16.2	85.78	24.17	15.84	26.22	13.92	37.33	40.09	49
Missouri	66.0	67.5	83.9	36.0	98.80	70.71	47.70	76.26	57.56	90.41	69.48	31
Montana	69.5	65.1	85.5	45.9	83.80	141.43	92.05	93.75	137.28	96.50	91.08	10
Nebraska	70.1	74.9	85.5	45.6	80.48	117.00	87.72	87.17	119.44	86.83	85.47	13
Nevada	68.6	73.2	84.7	51.9	88.21	143.49	105.03	94.98	118.08	111.80	93.99	7
New Hampshire	73.7	57.5	85.5	43.2	86.58	84.15	48.41	74.39	72.54	84.60	71.04	29
New Jersey	78.0	64.2	94.4	33.3	90.30	123.13	79.07	137.97	121.58	139.75	97.07	2
New Mexico	58.8	50.1	85.3	27.3	83.73	92.59	46.36	72.09	72.20	88.00	67.64	34
New York	77.1	62.3	92.5	42.0	95.82	120.77	75.28	126.15	89.16	159.16	94.02	6
North Carolina	50.4	62.6	69.5	14.3	78.94	40.42	25.31	46.48	33.20	54.75	47.59	42
North Dakota	68.3	77.1	73.6	36.0	72.71	96.03	74.08	71.39	83.42	80.75	73.33	28
Ohio	74.9	69.5	87.2	48.6	92.96	121.12	84.20	130.72	136.54	114.08	95.98	3
Oklahoma	54.2	64.5	80.0	29.1	79.79	70.63	45.54	73.69	61.86	82.83	64.21	36
Oregon	73.5	76.4	84.0	55.2	87.32	95.03	72.57	80.66	73.22	99.16	79.71	23
Pennsylvania	76.0	61.9	89.7	34.2	88.98	75.57	46.80	95.02	68.72	103.66	74.05	27
Rhode Island	81.4	57.6	97.3	33.0	94.24	83.98	48.38	98.58	68.08	117.25	77.98	26
South Carolina	39.9	59.0	55.3	13.8	99.28	27.66	16.31	32.70	18.48	48.91	41.12	48
South Dakota	68.2	70.5	84.1	37.5	75.51	121.81	85.84	81.26	126.10	78.42	82.91	20
Tennessee	49.9	63.1	70.3	20.7	77.52	33.27	21.01	42.27	24.58	45.00	44.77	43
Texas	56.2	65.8	68.3	27.5	83.94	54.62	35.92	62.11	49.62	67.83	57.18	37
Utah	70.3	74.7	82.2	47.7	92.81	94.31	70.46	102.32	92.32	104.50	83.15	18
Vermont	72.6	66.0	82.5	60.0	96.34	73.97	48.85	57.58	58.06	69.25	68.60	32
Virginia	58.1	56.5	79.6	16.8	85.04	53.21	30.06	56.58	51.80	58.00	54.56	39
Washington	70.2	73.4	88.9	54.3	87.78	124.49	91.32	119.22	120.60	122.92	95.31	5
West Virginia	57.6	64.4	71.6	21.3	69.55	63.63	40.96	58.92	45.14	76.00	56.91	38
Wisconsin	75.1	61.0	88.9	45.3	83.11	94.90	57.91	91.61	80.48	105.50	78.38	25
Wyoming	65.2	72.7	83.6	36.0	78.97	135.42	98.52	81.02	130.78	83.33	86.55	11

TABLE 5.—STATE RANKS, 1910, 1918, 1920, AND 1922.

STATES	1910		1918		1920		1922	
	Original	Revised	Original	Revised	Original	Revised	Original	Revised
Alabama	45	45	46	48	46	47	46	45
Arizona	18	18	3	4	3	8	8	9
Arkansas	46	46	47	47	44	44	44	43
California	2	2	2	2	2	1	1	1
Colorado	13	12	14	16	18	17	19	19
Connecticut	12	13	11	11	11	10	22	20
Delaware	34	34	36	36	32	33	30	31
Dist. of Columbia	3	4	5	5	10	9	17	17
Florida	42	41	38	39	37	37	41	41
Georgia	44	44	44	44	47	46	47	46
Idaho	20	20	18	19	5	5	21	21
Illinois	11	11	23	24	23	23	16	16
Indiana	17	17	17	14	17	15	4	5
Iowa	30	30	7	7	20	20	15	11
Kansas	24	24	26	26	22	21	24	24
Kentucky	40	40	42	42	49	49	45	47
Louisiana	39	39	43	43	39	40	40	40
Maine	31	31	33	33	34	32	35	33
Maryland	33	33	35	35	36	36	33	34
Massachusetts	4	5	9	9	13	11	14	12
Michigan	19	19	10	10	14	16	9	8
Minnesota	21	21	19	18	19	18	12	14
Mississippi	47	47	48	46	48	48	49	48
Missouri	32	32	32	32	31	30	31	32
Montana	7	7	1	1	4	3	10	10
Nebraska	22	22	22	24	25	13	13	13
Nevada	5	3	16	15	1	2	7	7
New Hampshire	28	28	28	27	28	28	29	29
New Jersey	6	6	4	3	7	7	2	2
New Mexico	38	38	29	31	33	33	34	35
New York	8	8	13	13	16	12	6	6
North Carolina	48	48	45	45	43	43	42	42
North Dakota	27	27	15	20	21	24	28	28
Ohio	14	14	12	12	12	13	3	3
Oklahoma	35	35	34	34	35	34	36	36
Oregon	15	15	20	17	25	19	23	23
Pennsylvania	16	16	21	21	30	31	27	27
Rhode Island	10	10	25	25	29	29	26	25
South Carolina	49	49	49	45	45	45	48	49
South Dakota	26	26	27	28	15	22	20	22
Tennessee	43	43	41	40	42	42	43	44
Texas	37	37	37	37	40	39	37	37
Utah	9	9	8	8	8	6	18	18
Vermont	29	29	30	29	27	26	32	30
Virginia	41	42	40	41	41	41	39	39
Washington	1	1	6	6	6	4	5	4
West Virginia	36	36	39	38	38	38	38	38
Wisconsin	23	23	31	30	26	27	25	26
Wyoming	25	25	24	23	9	14	11	13

TABLE 2.—EDUCATIONAL DATA FOR 1922—REVIS

STATES	Per cent of school population attending school daily	Average days attended by each child of school age	Average number of days schools were kept open
	1	2	3
Continental U. S.	52.65	41.46	78.75
Alabama	38.98	22.90	58.65
Arizona	40.97	27.80	67.75
Arkansas	47.94	25.55	53.25
California	53.09	48.35	91.00
Colorado	55.78	43.55	78.00
Connecticut	57.66	53.50	92.35
Delaware	42.08	36.35	86.25
Dist. of Colum.	62.12	56.35	90.60
Florida	54.83	31.65	53.00
Georgia	41.71	31.00	72.20
Idaho	56.12	38.35	68.50
Illinois	55.26	47.55	85.50
Indiana	61.26	45.05	73.50
Iowa	56.81	48.85	86.00
Kansas	58.01	47.45	81.75
Kentucky	44.55	27.85	62.50
Louisiana	33.93	23.05	67.80
Maine	62.10	49.40	79.50
Maryland	40.33	37.35	92.50
Massachusetts	60.62	56.90	93.00
Michigan	58.45	49.90	85.50
Minnesota	57.11	42.55	74.50
Mississippi	42.77	28.60	61.50
Missouri	50.48	39.10	77.50
Montana	49.26	45.45	92.25
Nebraska	53.25	46.40	87.00
Nevada	42.43	30.90	72.65
New Hampshire	53.87	44.20	82.00
New Jersey	51.94	47.85	92.00
New Mexico	43.69	21.85	50.00
New York	54.31	51.00	93.75
North Carolina	48.02	24.50	59.95
North Dakota	53.87	39.85	73.65
Ohio	60.29	51.00	85.00
Oklahoma	53.72	32.05	70.00
Oregon	61.57	42.60	69.00
Pennsylvania	52.94	44.95	85.00
Rhode Island	51.02	49.25	96.50
South Carolina	46.52	24.45	52.55
South Dakota	47.26	39.35	82.95
Tennessee	52.21	33.95	65.00
Texas	42.05	27.50	65.50
Utah	56.89	46.85	82.40
Vermont	66.55	53.35	80.00
Virginia	39.82	27.90	70.00
Washington	60.47	52.25	86.00
West Virginia	53.66	35.90	67.00
Wisconsin	46.23	41.65	90.00
Wyoming	54.17	40.20	70.45

Supplement to American School Board Journal, December, 1924

TABLE 2.—EDUCATIONAL DATA FOR 1910—REVISED METHOD.

STATES	1	2	3	4	5	6	7	8	9	10	11	12
Continental U. S.	56.20	45.20	80.35	31.78	75.70	34.49	19.37	33.43	30.95			
Alabama	44.92	27.75	62.00	16.27	70.11	12.46	5.60	14.14	7.13			
Arizona	62.04	50.26	81.00	27.34	81.77	59.09	37.22	48.59	50.74			
Arkansas	53.29	31.95	60.00	11.73	68.58	11.69	6.23	12.18	5.44			
California	70.85	61.10	86.00	58.79	77.82	55.77	39.51	50.59	43.37			
Colorado	58.12	48.80	84.00	40.16	72.46	49.53	28.79	38.14	43.88			
Connecticut	64.71	58.70	90.50	35.13	79.30	39.25	25.39	42.50	35.71			
Delaware	45.87	37.60	82.00	31.28	72.56	24.99	11.46	24.04	15.84			
Dist. of Colum.	64.19	55.50	86.50	43.44	76.05	46.73	30.00	49.11	32.66			
Florida	50.93	33.10	65.00	17.83	64.23	23.90	12.18	21.49	23.49			
Georgia	49.12	34.00	69.00	15.46	73.66	11.61	5.70	14.49	5.04			
Idaho	61.25	45.90	75.00	38.44	71.78	48.74	29.86	39.39	47.86			
Illinois	61.88	49.20	79.50	32.68	78.62	37.59	23.26	43.80	34.82			
Indiana	73.37	56.95	77.50	37.87	82.94	37.02	27.16	40.70	41.21			
Iowa	67.85	61.05	90.00	42.00	88.87	51.99	35.27	31.00	55.65			
Kansas	58.16	49.85	86.00	51.79	68.44	41.07	24.23	29.73	40.32			
Kentucky	44.51	33.30	75.00	10.41	67.13	18.63	8.29	16.36	12.55			
Louisiana	39.54	26.90	68.00	19.64	59.24	18.11	7.16	21.72	12.23			
Maine	63.54	53.65	84.50	47.21	73.29	27.37	17.38	17.97	22.23			
Maryland	44.54	37.95	85.00	25.14	60.19	25.97	11.57	30.42	16.54			
Massachusetts	60.58	52.20	88.00	46.13	80.09	42.13	25.52	44.48	36.68			
Michigan	67.87	58.35	86.00	36.67	78.03	43.11	29.26	39.52	46.24			
Minnesota	58.85	49.70	84.50	38.60	68.31	46.96	27.64	38.97	48.01			
Mississippi	53.11	36.70	69.00	10.96	67.53	8.45	4.60	10.48	1.77			
Missouri	56.18	46.45	82.50	33.62	69.27	31.78	17.86	32.40	26.07			
Montana	80.24	65.70	76.00	34.67	65.59	72.39	62.43	45.71	80.92			
Nebraska	60.92	50.30	82.50	40.61	68.82	47.11	28.70	32.98	45.40			
Nevada	55.39	47.40	85.50	44.01	79.10	54.04	29.93	31.95	38.48			
New Hampshire	53.20	46.25	87.00	47.06	76.79	41.83	22.25	29.35	37.98			
New Jersey	57.33	53.05	92.50	35.92	85.72	50.11	28.74	53.05	49.89			
New Mexico	44.50	34.55	77.50	17.78	76.30	48.22	21.46	38.47	55.13			
New York	53.68	50.05	93.50	37.61	90.04	43.79	23.51	39.56	27.21			
North Carolina	52.35	32.20	61.50	12.91	70.88	11.07	5.80	12.46	6.54			
North Dakota	53.66	44.95	84.00	29.20	59.22	58.29	31.20	37.91	63.45			
Ohio	68.11	55.45	81.50	37.16	80.86	41.76	28.44	40.24	43.20			
Oklahoma	45.72	35.75	78.50	28.45	68.48	29.82	13.64	29.23	25.55			
Oregon	67.11	61.40	91.50	41.15	71.13	40.49	27.12	33.03	32.95			
Pennsylvania	56.02	49.00	87.50	30.93	78.76	39.75	22.28	45.74	43.80			
Rhode Island	48.00	47.25	96.50	34.48	81.43	39.35	19.28	40.38	36.72			
South Carolina	46.14	26.05	56.50	10.28	58.59	13.63	6.29	16.88	12.37			
South Dakota	44.44	41.35	93.00	39.72	62.75	54.96	24.42	28.03	51.82			
Tennessee	58.25	40.70	70.00	12.29	70.29	13.32	7.76	17.40	10.06			
Texas	54.67	39.90	73.00	23.49	69.62	21.88	11.96	24.78	18.50			
Utah	65.30	55.10	84.50	32.00	83.88	43.74	28.56	44.89	43.61			
Vermont	58.35	49.90	85.50	47.85	74.41	35.81	20.89	24.22	32.35			
Virginia	48.00	33.84	70.50	24.49	62.89	17.87	8.60	17.48	12.72			
Washington	53.56	46.70	87.00	52.88	69.57	55.00	29.47	45.97	44.44			
West Virginia	53.43	35.05	66.50	22.03	70.24	22.06	11.78	18.17	14.45			
Wisconsin	50.84	45.20	89.00	41.20	75.57	34.78	17.68	30.68	34.51			
Wyoming	77.93	58.50	75.00	29.43	63.83	45.97	35.82	29.68	37.91			

TABLE 3.—EDUCATIONAL DATA FOR 1918—REVISED METHOD

STATES	1	2	3	4	5	6	7	8	9
Continental U. S.	56.20	45.20	80.35	31.78	75.70	34.49	19.37	33.43	30.95
Alabama	44.92	27.75	62.00	16.27	70.11	12.46	5.60	14.14	7.13
Arizona	62.04	50.26	81.00	27.34	81.77	59.09	37.22	48.59	50.74
Arkansas	53.29	31.95	60.00	11.73	68.58	11.69	6.23	12.18	5.44
California	70.85	61.10	86.00	58.79	77.82	55.77	39.51	50.59	43.37
Colorado	58.12	48.80	84.00	40.16	72.46	49.53	28.79	38.14	43.88
Connecticut	64.71	58.70	90.50	35.13	79.30	39.25	25.39	42.50	35.71
Delaware	45.87	37.60	82.00	31.28	72.56	24.99	11.46	24.04	15.84
Dist. of Colum.	64.19	55.50	86.50	43.44	76.05	46.73	30.00	49.11	32.66
Florida	50.93	33.10	65.00	17.83	64.23	23.90	12.18	21.49	23.49
Georgia	49.12	34.00	69.00	15.46	73.66	11.61	5.70	14.49	5.04
Idaho	61.25	45.90	75.00	38.44	71.78	48.74	29.86	39.39	47.86
Illinois	61.88	49.20	79.50	32.68	78.62	37.59	23.26	43.80	34.82
Indiana	73.37	56.95	77.50	37.87	82.94	37.02	27.16	40.70	41.21
Iowa	67.85	61.05	90.00	42.00	88.87	51.99	35.27	31.00	55.65
Kansas	58.16	49.85	86.00	51.79	68.44	41.07	24.23	29.73	40.32
Kentucky	44.51	33.30	75.00	10.41	67.13	18.63	8.29	16.36	12.55
Louisiana	39.54	26.90	68.00	19.64	59.24	18.11	7.16	21.72	12.23
Maine	63.54	53.65	84.50	47.21	73.29	27.37	17.38	17.97	22.23
Maryland	44.54	37.95	85.00	25.14	60.19	25.97	11.57	30.42	16.54
Massachusetts	60.58	52.20	88.00	46.13	80.09	42.13	25.52	44.48	36.68
Michigan	67.87	58.35	86.00	36.67	78.03	43.11	29.26	39.52	46.24
Minnesota	58.85	49.70	84.50	38.60	68.31	46.96	27.64	38.97	48.01
Mississippi	53.11	36.70	69.00	10.96	67.53	8.45	4.60	10.48	1.77
Missouri	56.18	46.45	82.50	33.62	69.27	31.78	17.86	32.40	26.07
Montana	80.24	65.70	76.00	34.67	65.59	72.39	62.43	45.71	80.92
Nebraska	60.92	50.30	82.50	40.61	68.82	47.11	28.70	32.98	45.40
Nevada	55.39	47.40	85.50	44.01	79.10	54.04	29.93	31.95	38.48
New Hampshire	53.20	46.25	87.00	47.06	76.79	41.83	22.25	29.35	37.98
New Jersey	57.33	53.05	92.50	35.92	85.72	50.11	28.74	53.05	49.89
New Mexico	44.50	34.55	77.50	17.78	76.30	48.22	21.46	38.47	55.13
New York	53.68	50.05	93.50	37.61	90.04	43.79	23.51	39.56	27.21
North Carolina	52.35	32.20	61.50	12.91	70.88	11.07	5.80	12.46	6.54
North Dakota	53.66	44.95	84.00	29.20	59.22	58.29	31.20	37.91	63.45
Ohio	68.11	55.45	81.50	37.16	80.86	41.76	28.44	40.24	43.20
Oklahoma	45.72	35.75	78.50	28.45	68.48	29.82	13.64	29.23	25.55
Oregon	67.11	61.40	91.50	41.15	71.13	40.49	27.12	33.03	32.95
Pennsylvania	56.02	49.00	87.50	30.93	78.76	39.75	22.28	45.74	43.80
Rhode Island	48.00	47.25	96.50	34.48	81.43	39.35	19.28	40.38	36.72
South Carolina	46.14	26.05	56.50	10.28	58.59	13.63	6.29	16.88	12.37
South Dakota	44.44	41.35	93.00	39.72	62.75	54.96	24.42	28.03	51.82
Tennessee	58.25	40.70	70.00	12.29	70.29	13.32	7.76	17.40	10.06
Texas	54.67	39.90	73.00	23.49	69.62	21.88	11.96	24.78	18.50
Utah	65.30	55.10	84.50	32.00	83.88	43.74	28.56	44.89	43.61
Vermont	58.35	49.90	85.50	47.85	74.41	35.81	20.89	24.22	32.35
Virginia	48.00	33.84	70.50	24.49	62.89	17.87	8.60	17.48	12.72
Washington	53.56	46.70	87.00	52.88	69.57	55.00	29.47	45.97	44.44
West Virginia	53.43	35.05	66.50	22.03	70.24	22.06	11.78	18.17	14.45
Wisconsin	50.84	45.20	89.00	41.20	75.57	34.78	17.68	30.68	34.51
Wyoming	77.93	58.50	75.00	29.43	63.83	45.97	35.82	29.68	37.91

TABLE 6.—EDUCATIONAL DATA FOR 1920—ORIGINAL METHOD.

State	1	2	3	4	5	6	7	8	9	10	11	12
Percentage of pupils attending in daily attendance	Average days attended by each child 5 to 18 years	Average number of days schools were in session	Per cent high school attendance is of total attendance	Per cent boys were of girls in U. S.	Average annual expenditure per child attending	Average annual expenditure per child of school age	Average annual expenditure per teacher employed	Expenditure per pupil for purposes other than teachers' salaries	Expenditure per teacher for salaries	Index for 1929	Rank	
1	2	3	4	5	6	7	8	9	10	11	12	
58.2	47.2	81.0	30.57	82.10	64.16	37.36	63.67	53.24	72.58	59.42		
47.8	29.4	61.6	17.11	78.40	24.81	11.85	30.25	16.46	40.33	35.80	46	
53.4	43.4	81.3	23.22	88.70	136.56	72.91	135.12	163.20	10.66	80.85	3	
57.8	36.5	63.2	17.28	75.90	23.63	13.67	30.67	15.28	39.75	37.37	44	
70.8	61.6	87.0	70.08	90.53	101.86	72.12	105.50	90.24	106.00	85.57	2	
64.7	54.4	83.9	33.24	78.57	87.95	56.94	78.37	84.22	77.41	69.97	18	
63.0	57.9	91.8	35.52	98.68	79.52	50.13	73.75	70.82	93.67	71.48	11	
52.1	47.3	90.9	23.73	79.43	61.26	31.91	61.58	49.70	70.67	56.86	32	
68.0	60.6	89.0	40.20	80.45	81.50	55.45	87.04	54.18	113.25	72.98	10	
68.8	40.4	66.6	16.92	86.71	42.42	25.79	44.04	43.26	43.17	47.01	37	
50.0	36.3	72.5	17.96	72.41	19.43	9.72	23.79	9.16	35.50	34.68	47	
69.6	60.2	86.4	34.38	77.34	101.51	70.68	89.88	113.38	77.67	78.10	5	
61.1	52.2	85.5	33.96	89.46	72.54	44.32	78.96	62.30	90.98	66.44	23	
64.1	49.9	77.9	41.61	93.49	78.24	50.18	86.58	71.90	80.03	70.02	17	
67.8	59.0	87.0	30.30	66.66	92.06	62.44	63.63	84.40	68.92	68.22	20	
66.8	54.8	82.0	42.42	72.05	84.84	56.71	64.41	85.72	63.42	67.32	22	
48.8	30.0	61.5	13.17	69.83	23.68	11.56	25.33	15.20	34.42	33.35	49	
45.9	34.2	74.5	18.70	62.11	44.38	20.39	52.83	36.46	60.25	44.97	39	
64.2	54.4	84.6	41.88	77.54	55.26	35.49	46.63	50.84	50.25	56.11	34	
48.5	43.6	89.8	18.81	75.36	47.01	22.81	51.46	25.32	75.17	49.78	36	
59.4	53.3	89.7	44.94	88.71	78.68	46.75	89.33	57.94	105.17	71.39	13	
59.8	51.4	86.0	37.29	76.67	91.48	54.69	83.83	93.00	75.92	71.00	14	
64.1	51.3	80.0	36.57	70.64	90.50	58.04	76.08	93.54	73.50	69.43	19	
44.0	26.9	61.0	16.20	98.56	54.04	33.41	56.58	45.70	66.42	58.03	31	
61.8	50.3	81.4	32.07	98.02	21.06	9.26	19.08	15.32	24.25	33.51	48	
66.8	55.6	83.2	34.41	72.41	133.06	88.88	81.83	112.36	79.83	80.84	4	
67.5	55.4	82.0	30.00	69.49	88.51	57.37	60.13	83.20	63.75	65.74	24	
68.9	57.6	83.5	45.36	93.47	130.24	89.75	85.42	109.04	96.92	86.02	1	
53.4	46.5	87.0	37.32	83.73	71.57	38.19	62.83	66.52	63.17	61.02	28	
62.0	58.6	94.5	28.59	90.67	85.90	52.86	101.72	71.94	106.84	75.96	7	
55.0	45.4	82.5	14.25	67.00	69.64	38.33	62.67	64.88	66.93	56.72	33	
57.6	54.2	94.0	38.31	96.25	77.88	44.90	81.42	51.70	104.67	70.09	16	
56.5	37.8	77.0	12.29	70.00	25.65	14.48	30.04	17.80	38.67	38.02	43	
64.6	53.9	83.5	20.61	61.76	100.31	64.53	66.62	103.48	60.67	68.00	21	
60.7	50.1	82.5	39.36	88.13	87.38	50.63	89.50	79.34	90.67	71.43	12	
55.9	46.6	83.2	21.57	67.73	64.34	36.00	59.50	59.12	64.00	55.80	35	
76.0	57.8	76.0	50.16	86.53	73.20	55.41	53.54	47.28	72.50	64.84	25	
56.2	49.7	88.4	25.71	78.65	58.94	32.64	69.42	50.86	76.67	58.63	30	
51.3	46.7	91.5	29.25	80.11	64.94	33.11	71.08	48.44	89.17	60.56	20	
58.2	31.9	54.8	16.50	90.68	19.99	11.69	28.08	12.84	38.67	36.34	45	
55.8	46.6	83.5	30.09	65.30	117.21	65.43	61.72	124.20	58.00	70.79	15	
64.6	43.2	66.8	16.47	70.01	22.17	14.33	31.84	15.86	41.17	38.65	43	
52.8	41.1	77.8	28.63	72.73	45.07	25.81	48.25	42.16	12.00	44.44	46	
72.6	60.3	83.2	36.12	88.32	84.30	61.22	101.84	88.72	82.66	75.94	8	
59.6	48.4	81.0	45.00	95.34	71.49	42.61	54.46	68.70	55.58	62.21	27	
50.9	37.5	73.5	16.83	65.90	36.94	18.82	37.87	29.02	45.50	41.28	41	
68.3	60.3	88.2	44.70	78.81	97.50	66.50	80.21	73.28	102.42	76.93	4	
59.1	41.1	69.5	18.57	73.22	44.46	26.29	42.38	31.28	53.25	45.92	38	
54.0	47.4	87.7	38.55	78.57	73.92	39.93	70.94	63.46	76.25	62.98	26	
70.7	53.8	76.0	31.14	69.85	112.37	79.50	70.33	97.00	72.42	73.31		

American School Board Journal, December, 1924

ISED METHOD.

Average expenditure per teacher employed					Rank
8	9	10	11	12	
26.51	28.89	43.48	43.55		
14.86	12.75	28.10	27.43	45	
52.68	32.71	73.18	47.18	18	
15.00	4.03	25.48	27.15	46	
71.76	58.35	82.20	62.66	2	
44.90	37.49	57.49	50.78	12	
46.27	36.34	50.28	50.67	13	
27.29	18.42	37.13	38.96	34	
19.84	58.73	80.24	58.17	4	
19.80	13.74	24.77	30.29	41	
15.68	7.83	22.41	20.58	44	
43.67	39.91	49.22	46.00	20	
51.90	46.24	52.72	51.43	11	
38.69	30.08	46.82	47.19	17	
20.73	26.45	27.06	42.54	30	
32.63	29.82	38.41	44.17	24	
22.81	12.98	30.24	31.10	40	
30.31	19.38	37.15	31.79	39	
17.63	22.41	21.87	40.45	31	
30.82	14.01	46.19	39.38	33	
58.89	41.33	67.85	58.04	5	
36.35	28.97	42.95	46.34	19	
40.50	39.22	43.56	45.84	21	
12.01	4.86	18.82	26.75	47	
31.87	21.67	39.63	39.76	32	
32.44	61.51	57.83	55.42	7	
30.09	32.54	36.83	45.13	22	
56.74	113.13	42.14	58.40	3	
24.38	28.14	29.43	43.43	28	
63.24	54.00	65.47	56.35	6	
24.11	16.13	31.22	31.79	38	
51.56	29.13	72.87	53.48	8	
12.13	5.14	17.94	26.06	48	
27.59	48.87	30.33	43.81	27	
41.04	35.08	46.99	50.02	14	
31.87	22.18	36.55	36.89	35	
46.75	48.71	46.27	49.35	15	
50.48	43.72	49.62	48.72	16	
46.99	36.58	54.45	52.26	10	
12.55	4.20	18.97	25.21	49	
28.26	49.11	29.52	43.85	26	
19.17	8.24	26.19	30.00	43	
55.74	15.02	34.44	33.09	37	
27.74	51.25	53.05	52.57	9	
22.14	30.66	23.83	43.04	29	
18.91	13.32	24.04	30.28	42	
65.57	76.23	61.99	63.44	1	
20.89	14.22	28.96	33.57	36	
32.82	27.32	40.87	44.31	23	
32.16	39.69	39.37	43.91	25	

ORIGINAL METHOD.

Average annual expenditure per teacher employed					Rank
8	9	10	11	12	
65.07	55.24	72.58	59.42		
30.25	16.46	40.33	35.80	46	
135.12	163.20	10.66	80.85	3	
30.67	15.28	39.75	37.37	44	
105.50	90.24	106.00	85.57	2	
78.37	84.22	77.41	69.97	18	
73.75	70.82	93.67	71.48	11	
61.58	49.70	70.67	56.86	32	
87.04	54.18	113.25	72.98	10	
44.04	43.26	43.17	47.01	37	
23.79	9.16	35.50	34.68	47	
89.88	113.38	77.67	78.10	5	
78.96	62.30	90.08	66.44	23	
86.58	71.90	80.33	70.02	17	
63.63	84.40	68.92	68.22	20	
64.41	85.72	63.42	67.32	22	
25.33	15.20	34.42	33.35	49	
32.83	36.46	60.25	44.97	39	
46.63	50.84	50.25	56.11	34	
51.46	25.32	75.17	49.78	36	
89.33	57.94	105.17	71.39	13	
83.83	93.00	75.92	71.00	14	
76.08	93.54	73.50	69.43	19	
56.58	45.70	66.42	58.03	31	
19.08	15.32	24.25	33.51	48	
81.83	112.36	79.83	80.84	4	
60.13	83.20	63.75	65.74	24	
85.42	109.04	96.92	86.02	1	
62.83	66.52	63.17	61.02	28	
101.72	71.94	106.84	75.96	7	
62.67	64.88	66.93	56.72	33	
81.42	51.70	104.67	70.09	16	
30.04	17.80	38.67	38.02	43	
60.62	103.48	60.67	68.00	21	
89.50	79.34	90.67	71.43	12	
59.50	59.12	64.00	55.80	35	
53.54	47.28	72.50	64.84	25	
60.42	50.86	76.67	58.63	20	
71.08	48.44	89.17	60.56	29	
28.08	13.84	38.67	36.34	45	
61.72	124.20	58.00	70.79	15	
31.84	15.86	41.17	38.65	42	
48.25	42.16	12.00	44.44	40	
101.84	88.72	82.66	75.94	8	
54.46	68.70	55.58	62.21	27	
37.87	29.02	45.50	41.28	41	
89.21	73.28	102.42	76.93	6	
42.38	31.28	53.25	45.92	38	
70.64	63.46	76.25	62.98	26	
70.33	97.00	72.42	73.31	9	

TABLE 3.—EDUCATIONAL DATA FOR 1918—REVISED METHOD.

STATES	Per cent of school population attending school daily	Average days attended by each child of school age	Average number of days schools were kept open	Per cent that high school attendance was of total attendance	Per cent that boys in high school	Average expenditure per child attending	Average expenditure per child of school age	Average expenditure per teacher employed	Expenditure per pupil for purposes other than teachers' salaries	Expenditure per teacher for salaries	Total	Rank
	1	2	3	4	5	6	7	8	9	10	11	12
Continental U. S.	56.20	45.20	80.35	31.78	75.70	34.49	19.37	33.43	30.95	36.87	44.34	48
Alabama	44.92	27.75	62.00	16.27	70.11	12.46	5.60	14.14	7.13	20.18	28.06	48
Arizona	62.04	50.26	81.00	27.34	81.77	59.99	37.22	48.59	50.74	55.97	55.48	4
Arkansas	53.29	31.95	60.00	11.73	68.58	11.69	6.23	12.18	5.44	20.18	28.13	47
California	70.85	61.10	86.00	58.79	77.82	55.77	39.51	50.59	43.37	61.84	60.56	2
Colorado	58.12	48.80	84.00	40.16	72.46	49.53	28.79	38.14	43.88	42.48	50.64	16
Connecticut	64.71	58.70	90.50	35.13	79.30	39.25	25.39	42.50	35.71	46.33	51.75	11
Delaware	45.87	37.60	82.00	31.28	72.56	24.99	11.46	24.04	15.84	32.84	37.85	36
Dist. of Colum.	64.19	55.50	86.50	43.44	76.05	46.73	30.00	49.11	32.66	63.89	54.81	5
Florida	50.93	33.10	65.00	17.83	64.23	23.90	12.18	21.49	23.49	21.86	33.40	39
Georgia	49.12	34.00	69.00	15.46	73.66	11.61	5.70	14.49	5.04	22.69	30.08	44
Idaho	61.25	45.90	75.00	38.44	71.78	48.74	29.86	39.39	47.86	40.11	49.83	19
Illinois	61.88	49.20	79.50	32.68	78.62	37.59	23.26	43.80	34.82	47.02	48.84	24
Indiana	73.37	56.95	77.50	37.87	82.94	37.02	27.16	40.70	41.21	36.08	51.08	14
Iowa	67.85	61.05	90.00	42.00	68.87	51.99	35.27	31.00	55.65	28.82	53.25	7
Kansas	58.16	49.85	86.00	51.79	68.44	41.67	24.23	29.73	40.32	30.70	48.09	26
Kentucky	44.51	33.30	75.00	19.41	67.13	18.63	8.29	16.36	12.55	21.60	31.69	42
Louisiana	39.54	26.90	68.00	19.64	59.24	18.11	7.16	21.72	12.23	28.76	30.13	43
Maine	63.54	53.65	84.50	47.21	73.29	27.37	17.38	17.97	22.23	21.35	42.85	33
Maryland	44.54	37.95	85.00	25.14	60.19	25.97	11.57	30.42	16.54	41.46	37.88	35
Massachusetts	60.58	52.20	88.00	46.13	80.09	42.13	25.52	44.48	36.68	50.23	52.60	9
Michigan	67.87	58.35	86.00	36.67	78.03	43.11	29.26	39.52	46.24	36.66	52.17	10
Minnesota	58.85	49.70	84.50	38.60	68.31	46.96	27.64	38.97	48.01	38.09	49.96	18
Mississippi	53.11	36.70	69.00	10.96	67.53	8.65	4.60	10.48	1.77	18.81	28.16	46
Missouri	56.18	46.45	82.50	33.62	69.27	31.78	17.86	32.40	26.07	38.22	43.44	32
Montana	86.24	65.70	76.00	34.67	65.59	72.39	62.43	45.71	80.92	40.32	63.00	1
Nebraska	60.92	50.30	82.50	40.61	68.82	47.11	28.70	32.98	45.40	34.17	49.15	22
Nevada	55.39	47.40	85.50	44.01	79.16	54.04	29.93	31.95	39.48	40.55	50.74	15
New Hampshire	53.20	46.25	87.00	47.66	76.79	41.83	22.25	29.35	37.98	32.05	47.44	27
New Jersey	57.33	53.05	92.50	35.92	85.72	50.11	28.74	53.05	49.89	53.30	55.96	3
New Mexico	44.50	34.55	77.50	17.78	76.30	48.22	21.46	38.47	55.13	34.86	44.88	31
New York	53.68	50.05	93.50	37.61	90.04	43.79	23.51	39.56	27.21	54.54	51.35	13
North Carolina	52.35	32.20	61.50	12.91	70.88	11.07	5.80	12.46	6.54	17.56	28.33	45
North Dakota	53.60	44.95	84.00	29.20	59.22	58.20	31.20	37.91	63.45	34.48	49.62	20
Ohio	68.11	55.45	81.50	37.16	80.86	41.76	28.44	40.24	43.20	38.84	51.56	12
Oklahoma	45.72	35.75	78.50	28.45	68.48	29.82	13.64	29.23	25.55	33.43	38.86	34
Oregon	67.11	61.40	91.50	41.15	71.13	40.40	27.12	33.03	32.95	39.12	50.49	17
Pennsylvania	56.02	49.00	87.50	30.93	78.76	39.75	22.28	45.74	43.80	41.08	49.49	21
Rhode Island	48.99	47.25	96.50	34.48	81.43	39.35	19.28	40.38	36.72	43.08	48.74	25
South Carolina	46.14	26.05	56.50	10.28	58.59	13.63	6.29	16.88	12.37	18.43	26.52	49
South Dakota	44.44	41.35	93.00	39.72	62.75	54.96	24.42	28.03	51.82	29.63	47.01	28
Tennessee	58.25	40.70	70.00	12.29	70.20	13.32	7.76	17.40	10.06	21.66	32.16	40
Texas	54.67	39.90	73.00	23.49	69.02	21.88	11.96	24.78	18.59	28.50	36.64	37
Utah	65.30	55.10	84.50	32.00	83.88	43.74	28.56	44.89	43.61	45.03	52.66	8
Vermont	58.35	49.90	85.50	47.85	74.41	35.81	20.89	24.22	32.35	26.55	45.58	29
Virginia	48.09	33.84	70.50	24.49	62.89	17.87	8.60	17.48	12.72	22.52	31.90	41
Washington	53.56	46.70	87.00	52.88	69.57	55.09	29.47	45.97	44.44	54.79	53.94	6
West Virginia	53.43	35.65	66.50	22.03	70.24	22.06	11.78	18.17	14.45	24.44	33.88	38
Wisconsin	50.84	45.20	89.00	41.20	75.57	34.78	17.68	30.68	34.51	30.92	45.04	30
Wyoming	77.93	58.50	75.00	29.43	63.83	45.97	35.82	29.68	37.91	34.88	48.90	23

TABLE 4.—EDUCATIONAL DATA FOR 1922—REVISED METHOD.

STATES			Per cent of school population attending school daily	Average days attended by each child of school age	Average number of days schools were kept open	Per cent that high school attendance was of total attendance	Per cent that boys were of girls in high schools	Average expenditure per child attending	Average expenditure per child of school age	Average expenditure per teacher employed	Expenditure per pupil for purposes other than teachers' salaries	Expenditure per teacher for salaries	Total	Rank
10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
36.87	44.34	48	65.30	64.4	82.20	36.9	89.17	49.20	31.68	52.26	44.80	55.74	57.15	48
20.18	28.06	48	47.90	54.8	65.40	22.0	85.30	16.94	9.29	21.81	11.52	28.78	36.37	45
55.97	55.48	4	65.50	52.9	85.00	34.2	89.96	79.39	42.03	74.57	79.45	74.47	67.75	9
20.18	28.13	47	47.05	63.2	65.20	21.0	89.84	13.78	8.71	22.55	5.99	35.28	38.26	43
61.84	60.56	2	63.00	80.3	89.50	81.3	90.80	90.91	73.01	91.08	93.56	88.40	85.09	1
42.48	50.64	16	61.60	70.0	87.05	48.6	87.40	65.20	45.65	49.28	59.72	52.93	62.74	19
46.33	51.75	11	76.05	68.2	92.15	40.2	87.99	52.27	35.65	59.16	42.04	70.71	62.44	20
32.84	37.85	36	68.75	56.2	90.10	35.4	89.30	47.36	26.60	45.10	33.65	58.14	55.06	31
63.89	54.81	5	74.55	72.4	89.00	47.4	81.20	56.35	40.79	59.29	45.28	70.95	63.72	17
21.86	33.40	39	51.55	62.9	67.85	22.2	74.38	31.02	19.51	33.71	34.01	30.36	42.75	41
22.69	30.08	44	51.30	55.8	70.00	20.4	88.08	14.47	8.08	19.31	8.51	27.30	36.33	46
40.11	49.83	19	66.45	71.7	84.50	46.2	85.88	58.49	41.93	56.33	52.99	55.98	62.05	21
47.02	48.84	24	76.50	65.8	90.20	39.3	92.54	55.89	36.76	62.77	51.07	68.18	63.90	16
36.08	51.08	14	68.90	68.9	81.85	49.2	93.07	73.01	50.30	72.26	85.03	60.38	70.29	5
28.82	53.25	7	71.75	72.6	89.35	78.0	89.75	65.11	47.23	40.74	58.83	44.65	65.80	11
30.70	48.09	26	67.55	72.7	82.50	52.5	81.17	57.95	42.15	45.11	51.70	49.96	60.33	24
21.69	31.69	42	46.15	60.4	62.50	17.7	74.07	18.91	11.43	24.35	10.77	34.80	36.11	47
28.76	30.13	43	56.20	52.2	74.30	22.8	67.97	31.99	16.63	36.96	26.48	43.32	42.89	40
21.35	42.85	33	75.15	69.4	87.00	51.6	85.01	37.30	25.90	32.30	31.50	37.29	53.25	33
41.46	37.88	35	71.65	53.9	90.65	23.7	84.40	42.70	23.02	47.52	34.23	56.94	52.87	34
50.23	52.60	9	74.60	63.8	90.00	49.2	95.40	56.84	36.27	61.93	42.71	77.31	64.81	12
36.66	52.17	10	77.80	61.8	97.05	40.2	78.95	73.57	45.44	65.61	81.25	58.76	68.04	8
38.09	49.96	18	71.25	70.9	84.80	40.5	79.97	67.12	47.58	56.08	70.55	53.21	64.20	14
18.81	28.16	46	47.40	65.6	68.40	16.2	85.78	13.87	9.09	15.04	7.99	21.42	35.08	48
38.22	43.44	32	66.00	67.5	83.85	36.0	98.80	40.57	27.37	43.75	33.02	51.87	54.87	32
40.32	63.00	1	69.50	65.1	85.50	45.9	83.80	81.14	52.80	53.79	78.76	55.36	67.17	10
34.17	49.15	22	70.05	74.9	85.50	45.6	80.48	67.13	50.33	50.01	68.53	49.82	64.24	13
40.55	50.74	15	68.55	73.2	84.65	51.9	88.21	82.32	60.26	54.49	67.73	64.14	69.55	7
32.05	47.44	27	73.65	57.5	85.50	43.2	86.38	48.29	27.77	42.68	41.61	48.57	55.52	29
53.30	55.96	3	78.00	64.2	94.35	33.3	90.30	70.64	45.36	70.16	60.75	80.18	71.42	2
34.86	44.88	31	58.75	50.1	85.25	27.3	83.73	53.12	26.60	41.36	41.41	50.49	51.81	35
54.54	51.35	13	77.05	62.3	92.50	42.0	95.82	69.29	43.19	72.38	51.15	91.31	69.70	6
17.56	28.33	45	59.35	62.6	69.50	14.3	78.94	23.19	14.52	26.67	19.04	31.41	39.05	42
34.48	49.02	20	68.25	77.1	73.60	36.0	72.71	55.09	42.50	40.96	47.86	46.33	56.04	28
38.84	51.56	12	74.90	69.5	87.20	48.6	92.96	69.49	48.31	75.00	78.34	65.45	70.98	3
33.43	38.86	34	54.15	64.5	80.00	29.1	79.79	40.52	26.13	42.28	35.48	47.52	49.95	36
39.12	50.49	17	73.50	76.4	84.30	55.2	87.32	54.52	41.64	46.28	42.01	56.89	61.81	23
41.08	49.49	21	75.95	61.9	89.65	34.2	88.98	43.36	26.85	54.52	39.43	59.47	57.43	27
43.08	48.74	25	81.35	57.6	97.30	33.0	94.24	48.18	27.76	56.56	39.05	67.27	60.23	25
18.43	26.52	49	39.90	59.0	55.25	13.8	90.28	15.87	9.36	18.76	10.60	28.06	34.99	49
29.63	47.01	28	68.15	70.5	84.05	37.5	75.51	69.89	49.25	46.62	72.34	44.99	61.88	22
21.66	32.16	40	49.90	63.1	70.30	20.7	77.52	19.09	12.05	24.25	14.09	25.82	37.68	44
28.50	36.64	37	56.20	65.8	68.25	27.5	83.94	31.34	20.61	35.03	28.46	38.92	45.67	37
45.03	52.66	8	70.25	74.7	82.15	47.7	92.81	54.11	40.42	58.70	52.95	59.95	63.37	18
26.55	45.58	29	72.55	66.0	82.45	60.0	96.34	42.44	28.03	33.03	33.83	39.73	55.44	30
22.52	31.90	41	58.05	56.5	79.55	16.8	85.04	30.53	17.25	32.46	29.74	33.28	43.92	39
54.79	53.94	6	70.15	73.4	88.90	54.3	87.78	71.42	52.39	68.40	69.18	70.52	70.64	4
24.44	33.88	38	57.60	64.4	71.55	21.3	69.55	36.51	23.50	33.80	25.90	43.60	44.77	38
30.92	45.04	30	75.05	61.0	88.85	45.3	83.11	54.45	33.22	52.56	46.17	60.53	60.02	26
34.88	48.90	23	65.20	72.7	83.60	36.0	78.97	77.69	56.52	46.48	75.03	47.81	64.00	15

*1923.

TABLE 9.—EDUCATIONAL DATA FOR 1910—METHOD OF RANKS.

Expenditure per pupil for salaries	Index for 1920	Rank	STATES										
10	11	12	1	2	3	4	5	6	7	8	9	10	
36.44	44.73		Continental U. S....	7.70	.527	7.13	113.0	157.5	.152	48.9	\$13.44	\$485	\$17.58
20.25	29.64	47	Alabama	22.88	.390	3.01	73.6	117.3	.133	61.2	.59	552	6.84
5.35	55.03	8	Arizona	20.90	.410	5.95	87.3	135.5	.330	59.6	15.20	850	31.96
10.95	31.24	44	Arkansas	12.61	.479	2.58	68.6	106.5	.046	51.3	1.88	550	8.05
53.21	61.88	1	California	3.73	.531	12.27	142.0	182.0	.188	50.3	27.13	801	49.43
38.86	50.80	17	Colorado	3.71	.558	11.38	99.3	156.0	.148	54.2	17.43	632	30.87
47.02	53.16	10	Connecticut	5.96	.577	8.97	143.5	184.7	.138	36.7	16.90	590	28.63
35.48	43.16	33	Delaware	8.12	.421	7.65	108.3	172.5	.111	27.6	8.57	442	16.82
56.85	53.48	9	Dist. of Colum....	4.95	.621	11.58	145.0	181.2	.213	57.6	27.31	984	48.04
21.67	37.12	37	Florida	13.78	.548	3.16	80.9	106.0	.068	59.5	6.39	521	11.98
17.82	29.82	46	Georgia	20.68	.417	4.16	92.5	144.4	.052	53.8	3.64	449	7.95
38.99	55.54	5	Idaho	2.19	.561	6.01	91.3	137.0	.138	69.3	18.56	700	28.56
45.22	49.10	23	Illinois	3.75	.553	8.11	133.7	171.6	.188	44.9	21.50	695	33.94
40.33	51.74	15	Indiana	3.06	.613	10.41	116.8	147.0	.169	50.5	13.90	659	28.06
34.60	49.72	20	Iowa	1.70	.568	10.98	121.4	176.0	.092	46.9	12.30	479	25.00
31.84	49.63	21	Kansas	2.19	.580	9.02	119.5	163.5	.213	41.8	13.87	634	24.61
17.28	27.86	49	Kentucky	12.08	.446	3.07	79.6	125.0	.247	43.3	6.04	394	11.41
30.25	34.30	40	Louisiana	29.02	.339	2.67	93.9	135.6	.199	65.0	9.01	523	16.13
25.23	44.23	32	Maine	4.07	.621	10.38	118.5	159.0	.129	47.7	10.42	369	20.34
37.74	38.74	36	Maryland	7.17	.403	5.58	113.7	185.0	.066	31.5	6.52	545	15.91
52.80	52.58	11	Massachusetts	5.16	.606	12.34	154.2	186.0	.142	41.2	19.22	700	37.58
38.11	51.13	16	Michigan	3.34	.585	9.02	140.0	171.8	.334	50.4	13.47	560	26.96
36.90	49.92	18	Minnesota	3.03	.571	7.65	118.0	149.0	.240	55.3	18.24	526	31.19
12.17	29.08	48	Mississippi	22.44	.428	2.95	74.6	123.0	.021	60.5	2.26	425	5.81
33.34	45.27	30	Missouri	4.28	.505	6.70	107.7	155.0	.262	46.7	10.08	572	18.48
40.07	56.14	3	Montana	4.76	.493	7.26	115.5	184.5	.083	52.3	28.60	726	39.82
32.00	48.26	25	Nebraska	1.95	.533	10.20	118.0	174.0	.218	51.2	15.13	552	26.49
48.65	60.55	2	Nevada	6.73	.424	10.75	106.0	145.3	.111	97.8	52.60	817	60.71
31.71	45.97	28	New Hampshire....	4.63	.539	10.87	128.6	164.0	.057	47.0	13.09	398	25.86
53.63	55.08	7	New Jersey	5.60	.519	6.96	138.9	184.0	.123	55.4	25.39	778	39.70
33.60	41.66	35	New Mexico	20.21	.437	3.26	66.4	100.0	.098	60.0	7.48	678	14.09
52.54	52.14	12	New York	5.48	.543	9.20	149.0	187.5	.115	57.0	13.55	882	36.45
19.41	31.72	43	North Carolina....	18.47	.480	2.57	64.9	101.9	.105	70.8	2.39	344	5.84
30.46	48.30	24	North Dakota	3.08	.539	4.56	94.9	147.3	.071	70.2	22.72	530	32.54
45.52	51.84	13	Ohio	3.24	.603	9.66	131.6	170.0	.048	45.0	16.81	587	31.56
32.13	41.71	34	Oklahoma	5.63	.537	3.20	78.8	140.0	.354	56.0	10.32	691	15.95
36.40	49.81	19	Oregon	1.89	.616	8.60	121.8	138.0	0.934	43.6	22.66	586	39.24
38.49	44.31	31	Pennsylvania	5.90	.529	6.49	133.0	169.0	.354	42.0	20.30	511	31.17
44.76	45.28	29	Rhode Island	7.69	.510	10.92	148.8	193.0	.168	43.3	17.01	668	31.06
19.41	39.79	45	South Carolina	25.69	.465	2.29	75.4	105.1	.107	72.1	1.95	520	5.73
29.12	49.54	22	South Dakota	2.88	.473	7.17	106.0	165.9	.125	58.2	22.84	552	30.30
20.67	32.40	42	Tennessee	13.64	.522	2.59	90.6	130.0	....	43.7	3.83	409	8.44
6.02	35.90	39	Texas	9.93	.421	5.58	86.8	131.0	.091	59.5	6.99	597	14.33
41.50	55.09	6	Utah	2.48	.589	5.20	124.6	164.8	....	53.3	23.83	790	33.33
27.90	47.63	26	Vermont	3.74	.666	8.85	125.1	160.0	.083	47.2	14.26	348	24.15
22.84	32.91	41	Virginia	15.16	.398	4.46	90.4	131.0	.060	51.1	6.19	383	10.96
51.41	55.57	4	Washington	1.97	.695	11.89	124.7	171.2	.146	62.1	35.45	630	48.65
26.73	36.07	38	West Virginia	8.28	.537	2.13	92.2	134.0	.191	57.7	6.61	599	14.81
38.28	46.87	27	Wisconsin	3.16	.462	9.99	124.4	180.0	.238	46.2	12.70	549	23.24
36.35	51.82	14	Wyoming	3.29	.542	5.18	101.5	140.9	....	58.2	18.46	604	32.36

TABLE 10.—EDUCATIONAL DATA FOR 1918—METHOD OF RANKS.

STATES	Percentage of illiteracy, ten years of age and over, 1910	Ratio of the number of children in average daily attendance to the number 5 to 17 years of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking teacher preparation courses to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age
Continental U. S.	7.70	.502	7.9	119.8	160.7	.172	39.1	\$22.03	\$635	\$27.58
Alabama	22.88	.449	5.4	73.6	124	.191	46.2	5.08	345	10.57
Arizona	20.90	.621	6.6	98.6	162	.474	45.9	36.13	952	51.98
Arkansas	12.61	.532	2.5	78.0	120	.093	46.1	3.87	387	10.82
California	3.73	.708	19.0	122.9	172	.257	45.1	30.88	1,012	56.60
Colorado	3.71	.581	12.1	115.5	168	.548	48.1	31.25	749	48.48
Connecticut	5.96	.647	10.0	142.0	181	.153	28.6	25.43	745	43.75
Delaware	8.12	.459	7.8	108.7	164	....	33.7	11.28	501	23.58
Dist. of Colum.	4.95	.641	12.6	134.4	173	.117	43.8	23.26	1,052	51.74
Florida	13.78	.509	5.4	90.9	130	....	43.8	16.73	383	23.80
Georgia	20.68	.491	5.4	93.8	138	.127	45.2	3.59	306	11.20
Idaho	2.19	.612	11.4	106.8	150	.249	41.0	34.08	685	49.45
Illinois	3.75	.619	10.3	140.5	159	.254	37.6	24.80	778	47.32
Indiana	3.06	.733	12.8	144.0	155	.124	40.8	29.35	587	48.88
Iowa	1.70	.678	10.1	134.2	180	.273	39.5	39.62	578	124.44
Kansas	2.19	.582	13.1	122.0	172	.357	33.3	28.71	513	42.20
Kentucky	12.08	.445	4.4	88.3	150	.173	53.3	8.94	364	15.67
Louisiana	29.02	.395	7.2	97.5	136	.206	48.6	8.71	471	18.49
Maine	4.07	.635	12.5	136.5	169	.119	36.7	15.82	443	31.48
Maryland	7.17	.445	5.8	117.3	170	.167	49.4	11.78	687	25.43
Massachusetts	5.16	.606	17.2	141.5	176	.157	36.0	26.11	858	49.28
Michigan	3.34	.678	11.6	137.2	172	.297	40.8	32.92	663	48.97
Minnesota	3.03	.588	10.4	129.3	169	.252	38.1	34.19	651	51.19
Mississippi	22.44	.531	5.4	88.4	138	.070	51.8	1.20	291	7.89
Missouri	4.28	.561	9.3	125.9	165	.344	41.4	18.57	651	34.45
Montana	4.76	.862	9.5	112.8	152	.105	41.2	57.62	670	76.30
Nebraska	1.95	.609	9.7	118.0	165	.280	28.4	32.33	562	47.94
Nevada	6.73	.554	10.5	123.0	171	....	37.9	28.11	874	55.28
New Hampshire	4.63	.532	18.1	138.7	174	.088	44.0	27.05	548	47.54
New Jersey	5.60	.573	8.9	139.5	185	.141	37.2	35.52	911	53.05
New Mexico	20.21	.445	4.4	102.1	155	.721	51.8	39.08	500	45.19
New York	5.48	.537	10.1	145.4	187	.014	47.7	19.38	976	48.64
North Carolina	18.47	.524	2.8	80.1	123	.225	54.6	4.66	284	10.32
North Dakota	3.08	.536	6.9	119.1	168	.261	40.2	45.19	578	58.88
Ohio	3.24	.681	14.0	145.5	163	.091	43.1	30.76	744	53.05
Oklahoma	5.63	.457	6.4	94.7	157	.484	47.0	18.19	571	25.69
Oregon	1.89	.671	15.5	164.2	183	.145	44.2	23.47	702	51.62
Pennsylvania	5.90	.560	8.2	141.8	175	.167	42.6	31.19	702	45.80
Rhode Island	7.69	.490	9.5	151.8	193	.179	31.8	26.15	802	44.07
South Carolina	25.69	.461	2.2	73.2	113	.345	49.4	8.81	315	12.59
South Dakota	2.88	.444	9.4	121.6	186	.334	45.1	36.90	504	51.14
Tennessee	13.64	.582	5.2	96.0	140	.094	41.2	7.16	370	13.02
Texas	9.93	.547	9.6	104.7	146	.249	61.3	13.23	487	22.35
Utah	2.48	.653	9.2	131.8	169	....	41.8	31.05	754	48.61
Vermont	3.74	.583	13.0	137.1	171	.136	32.8	23.04	467	40.88
Virginia	15.16	.480	6.1	95.8	141	.303	43.6	9.06	385	17.26
Washington	1.97	.534	14.0	129.3	174	.262	47.4	31.65	922	58.08
West Virginia	8.28	.534	5.2	93.6	133	.161	44.0	10.29	408	22.04
Wisconsin	3.16	.508	11.0	141.0	178	.532	42.2	24.57	521	39.29
Wyoming	3.29	.779	8.8	120.0	150	....	32.7	27.00	578	52.37

TABLE 14.—STATE RANKS, 1918, IN CERTAIN ITEMS.

STATES	Percentage of illiteracy ten years of age and over, 1910	Ratio of the number of children in average daily attendance to the number 5 to 17 years of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking teacher preparation courses to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost.	Excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age	Sum of ranks	Rank of sums
	1	2	3	4	5	6	7	8	9	10	11	12	
Alabama	47	48	42	48	46	23	12	45	46	47	404	49	
Arizona	45	13	35	36	29	5	14	6	4	10	197	16	
Arkansas	38	33	48	47	48	40	13	47	40	46	400	48	
California	17	4	1	23	14	16	17	16	2	5	115	2	
Colorado	16	22	12	30	24	2	8	13	12	21	160	7	
Connecticut	30	9	21	6	6	30	48	25	13	28	216	25	
Delaware	34	47	32	32	27	46	42	38	29	37	364	40	
Dist. of Columbia.....	24	11	10	16	13	37	21	29	1	11	173	8	
Florida	40	36	41	43	45	49	22	34	42	36	388	45	
Georgia	44	38	40	41	42	34	15	48	44	45	391	46	
Idaho	5	15	14	33	35	20	31	9	18	15	195	15	
Illinois	19	14	18	10	30	17	39	26	10	24	207	22	
Indiana	10	3	9	5	32	35	33	18	23	17	185	12	
Iowa	1	6	20	17	7	13	36	3	24	1	128	4	
Kansas	6	21	7	24	15	6	43	19	32	29	202	18	
Kentucky	37	46	46	45	37	25	3	41	45	42	367	41	
Louisiana	49	49	33	37	43	22	7	43	36	40	359	38	
Maine	20	12	11	15	21	36	47	35	38	33	268	32	
Maryland	32	44	38	29	19	26	34	37	17	35	311	36	
Massachusetts	25	17	3	8	9	29	41	24	8	16	180	9	
Michigan	15	7	13	13	16	11	32	10	20	18	155	5	
Minnesota	9	18	17	20	22	18	37	8	21	13	183	11	
Mississippi	46	34	39	44	41	43	5	49	48	49	398	47	
Missouri	21	24	27	21	26	8	28	32	22	32	241	20	
Montana	23	1	25	31	34	38	29	1	19	2	203	19	
Nebraska	3	16	22	28	25	12	49	11	28	22	216	26	
Nevada	31	26	16	22	18	45	38	20	7	6	229	27	
New Hampshire.....	22	32	2	12	12	42	19	21	30	23	215	24	
New Jersey	27	23	29	11	4	32	40	7	6	7	186	14	
New Mexico.....	43	45	45	35	33	1	4	4	34	26	270	33	
New York	26	28	19	4	2	44	9	31	3	19	185	13	
North Carolina.....	42	35	47	46	47	21	2	46	49	48	383	44	
North Dakota.....	11	29	34	27	23	15	35	2	25	3	204	21	
Ohio	13	5	6	3	28	41	24	17	14	8	159	6	
Oklahoma	28	42	36	40	31	4	11	33	27	34	286	34	
Oregon	2	8	4	1	5	31	18	28	9	12	118	3	
Pennsylvania	29	25	31	7	10	27	25	14	16	25	209	23	
Rhode Island.....	33	39	24	2	1	24	46	23	15	27	234	28	
South Carolina.....	48	41	49	49	49	7	6	42	47	44	382	43	
South Dakota.....	8	43	26	25	3	9	16	5	33	14	182	10	
Tennessee	39	20	43	38	40	39	30	44	43	45	379	42	
Texas	36	27	23	34	38	19	1	36	35	38	287	35	
Utah	7	10	28	18	20	48	27	15	11	20	204	20	
Vermont	18	19	8	14	17	33	44	30	37	30	250	30	
Virginia	41	40	37	39	39	10	23	40	41	41	351	37	
Washington	4	30	5	19	11	14	10	12	5	4	114	1	
West Virginia.....	35	31	44	42	44	28	20	39	39	39	361	39	
Wisconsin	12	37	15	9	8	3	26	27	31	31	199	17	
Wyoming	14	2	30	26	36	47	45	22	26	9	257	31	

STATES

Continental U.

Alabama
Arizona
Arkansas
California
ColoradoConnecticut
Delaware
Dist. of Colum.
Florida
GeorgiaIdaho
Illinois
Indiana
Iowa
KansasKentucky
Louisiana
Maine
Maryland
MassachusettsMichigan
Minnesota
Mississippi
Missouri
MontanaNebraska
Nevada
New Hampshire
New Jersey
New MexicoNew York
North Carolina
North Dakota
Ohio
OklahomaOregon
Pennsylvania
Rhode Island
South Carolina
South DakotaTennessee
Texas
Utah
Vermont
VirginiaWashington
West Virginia
Wisconsin
Wyoming

STATES

Alabama
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Louisiana
Maine
Maryland
MassachusettsMichigan
Minnesota
Mississippi
Missouri
MontanaNebraska
Nevada
New Hampshire
New Jersey
New MexicoNew York
North Carolina
North Dakota
Ohio
OklahomaOregon
Pennsylvania
Rhode Island
South Carolina
South DakotaTennessee
Texas
Utah
Vermont
VirginiaWashington
West Virginia
Wisconsin
Wyoming

Supplement to American School Board Journal

TABLE 11.—EDUCATIONAL DATA FOR 1920—METHOD OF RANKS.

STATES	Percentage of illiterates ten years of age and over in 1920	Ratio of the number of children in average daily attendance to the number 5 to 17 years of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking course to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age
Continental U. S.	596	582	10.19	121.2	161.9	103	40.95	\$27.62	\$871	\$37.36
Alabama	1607	478	6.22	79.4	123.1	176	44.15	8.23	484	11.85
Arizona	1532	534	7.74	98.6	162.6	138	22.28	81.60	1,270	72.91
Arkansas	935	578	5.76	85.2	126.3	066	48.54	7.64	477	13.67
California	333	708	23.36	120.2	174.0	124	40.44	45.12	1,272	72.12
Colorado	324	647	11.08	114.4	167.9	334	32.88	42.11	929	56.94
Connecticut	618	630	11.84	144.1	183.5	076	31.77	35.41	1,124	50.13
Delaware	587	521	7.91	129.2	181.7	0	51.71	24.85	848	31.91
Dist. of Colum.	279	680	13.43	143.8	178.0	093	46.94	27.09	1,359	55.45
Florida	955	608	5.64	98.0	133.1	0	48.17	21.63	518	25.79
Georgia	1529	500	6.53	98.0	145.0	123	45.81	4.50	426	9.72
Idaho	151	696	11.46	126.9	172.7	270	43.07	56.60	932	70.68
Illinois	336	611	11.32	144.9	170.9	205	36.67	31.15	1,081	44.32
Indiana	221	641	13.87	125.8	155.8	173	45.95	35.95	964	50.18
Iowa	108	678	10.10	137.2	174.0	170	36.94	42.30	827	62.44
Kansas	163	668	14.14	124.8	164.0	307	32.39	42.86	761	56.71
Kentucky	844	488	4.39	78.7	123.0	200	46.74	7.60	413	11.56
Louisiana	2189	459	6.80	107.7	148.9	138	55.61	18.23	723	20.39
Maine	326	642	13.96	142.4	169.2	100	34.32	25.42	603	35.49
Maryland	556	485	6.84	130.3	179.6	132	45.45	12.66	902	22.81
Massachusetts	472	594	14.98	149.6	179.4	146	33.32	28.97	1,262	46.75
Michigan	394	598	12.40	129.6	172.0	308	38.41	46.50	911	54.69
Minnesota	184	641	12.19	125.5	160.0	179	40.16	46.77	882	58.04
Mississippi	1716	440	5.40	76.9	122.0	084	42.59	7.66	291	9.26
Missouri	395	618	10.69	128.6	162.8	347	37.98	22.35	797	33.41
Montana	226	608	11.47	120.7	166.4	091	37.63	56.18	958	88.88
Nebraska	136	675	10.00	122.3	164.0	173	33.59	41.60	765	57.37
Nevada	595	689	15.12	125.8	167.0	0	41.41	54.52	1,163	89.75
New Hampshire	436	534	12.44	144.3	174.0	323	39.06	33.26	759	38.19
New Jersey	512	620	9.53	151.3	189.0	066	45.51	35.97	1,282	52.86
New Mexico	1556	550	4.75	120.5	165.0	631	40.88	32.44	893	38.33
New York	596	576	12.77	148.8	188.0	157	46.45	25.85	1,256	44.90
North Carolina	1310	565	4.47	91.8	134.0	005	51.04	8.90	464	14.48
North Dakota	211	646	6.87	127.4	166.9	296	40.04	51.74	728	64.53
Ohio	283	607	13.12	130.7	165.0	221	41.86	39.67	1,088	50.63
Oklahoma	376	559	7.19	100.5	166.4	426	36.59	29.56	768	36.00
Oregon	146	760	16.72	137.5	152.0	095	42.59	23.64	870	55.41
Pennsylvania	462	562	8.57	139.0	176.8	180	41.52	25.43	920	32.64
Rhode Island	647	513	9.75	142.9	182.1	161	38.61	24.22	1,070	33.11
South Carolina	1810	582	6.00	76.0	109.6	024	61.88	6.42	464	11.69
South Dakota	168	558	10.63	112.4	167.0	250	44.11	92.10	696	65.43
Tennessee	1031	646	5.49	98.5	133.5	155	44.44	7.83	494	14.33
Texas	832	528	10.41	112.0	155.6	278	51.31	21.08	612	23.81
Utah	189	726	12.04	138.5	160.4	014	42.38	44.36	902	61.22
Vermont	298	596	15.00	131.6	162.0	105	31.36	34.35	667	42.61
Virginia	1116	509	6.12	102.2	147.0	189	52.14	14.51	546	18.82
Washington	168	683	14.90	128.1	176.4	286	44.16	36.64	1,229	66.59
West Virginia	641	591	6.19	102.8	138.9	122	39.92	15.64	639	26.29
Wisconsin	244	540	12.85	137.3	175.3	436	38.29	31.73	915	39.93
Wyoming	209	707	10.38	117.4	152.0	0	39.72	48.50	869	79.50

TABLE 15.—STATE RANKS, 1920, IN CERTAIN ITEMS.

STATES	Percentage of illiterates ten years of age and over, 1919	Ratio of the number of children in average daily attendance to the number 5 to 17 years of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking course to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age	Sum of ranks	Rank of state
Alabama	46	47	39	46	46	20	18	43	43	45	393	45
Arizona	44	39	33	40	31	29	49	1	5	4	273	33
Arkansas	38	30	43	45	45	43	7	46	44	44	385	44
California	22	3	1	31	32	31	28	10	4	5	147	4
Colorado	20	13	22	33	19	5	45	14	17	14	202	21
Connecticut	33	19	18	6	3	42	47	20	9	22	219	24
Delaware	31	41	32	19	5	47	4	32	25	35	271	32
Dist. of Columbia	15	8	10	7	8	39	9	38	1	16	141	3
Florida	39	23	44	43	44	49	8	36	41	37	364	42
Georgia	43	44	38	42	40	32	13	40	47	48	396	47
Idaho	4	5	20	23	15	11	26	3	16	6	123	2
Illinois	23	22	21	4	17	15	40	25	11	25	293	22
Indiana	12	17	9	24	34	21	12	19	14	21	183	12
Iowa	1	9	26	14	13	23	39	13	26	10	174	9
Kansas	5	11	7	27	28	8	46	12	31	15	190	14
Kentucky	37	45	49	47	47	16	16	47	48	47	393	46
Louisiana	49	48	37	36	38	28	2	38	34	49	350	39
Maine	21	16	8	9	18	35	42	31	39	31	250	29
Maryland	30	46	36	17	6	30	15	41	21	39	281	34
Massachusetts	27	27	5	2	7	27	44	27	5	23	194	17
Michigan	18	25	15	18	16	7	35	9	20	18	181	11
Minnesota	8	18	16	26	33	19	29	8	22	12	191	15
Mississippi	47	49	46	48	48	41	21	45	49	49	443	49
Missouri	19	21	23	20	30	4	37	35	28	32	249	28
Montana	13	12	19	29	24	40	38	4	15	2	196	19
Nebraska	2	10	28	28	29	22	43	15	30	13	220	25
Nevada	32	6	3	25	21	46	26	5	8	1	173	8
New Hampshire	25	38	14	5	14	6	33	22	32	29	218	23
New Jersey	29	20	30	1	1	36	14	18	2	19	170	6
New Mexico	45	36	47	30	27	1	27	23	27	28	291	36
New York	28	31	13	3	2	25	11	29	6	24	172	7
North Carolina	42	32	48	44	42	37	6	42	45	42	380	43
North Dakota	11	15	35	22	22	12	30	16	33	9	195	18
Ohio	16	24	11	16	26	14	24	16	10	20	177	10
Oklahoma	24	34	34	39	23	3	41	26	29	30	283	35
Oregon	3	1	2	13	36	38	22	34	23	17	189	13
Pennsylvania	26	33	31	10	9	24	25	30	18	34	234	27
Rhode Island	35	42	29	8	4	24	34	33	12	33	254	30
South Carolina	48	29	42	49	49	44	1	48	46	46	402	48
South Dakota	7	35	27	34	20	13	19	2	35	8	200	20
Tennessee	40	14	45	41	43	26	16	44	42	43	354	40
Texas	36	40	24	35	35	10	5	37	38	38	293	37
Utah	9	2	17	12	25	45	23	11	13	11	168	5
Vermont	17	26	4	15	32	34	48	21	36	26	259	31
Virginia	41	43	41	38	39	17	3	40	40	41	343	38
Washington	6	7	6	21	10	9	17	17	7	7	107	1
West Virginia	34	28	40	37	41	33	31	39	37	36	356	41
Wisconsin	14	37	12	11	11	2	36	24	19	27	193	16
Wyoming	10	4	25	32	37	48	32	7	24	3	222	26

STATES

Continental U. S.	3
Alabama	10
Arizona	13
Arkansas	9
California	3
Colorado	30
Connecticut	6
Delaware	5
Dist. of Colum.	2
Florida	9
Georgia	15
Idaho	1
Illinois	5
Indiana	2
Iowa	1
Kansas	1
Kentucky	8
Louisiana	21
Maine	3
Maryland	1
Massachusetts	4
Michigan	3
Minnesota	7
Mississippi	17
Missouri	9
Montana	2
Nebraska	4
Nevada	4
New Hampshire	4
New Jersey	15
New Mexico	15
New York	1
North Carolina	15
North Dakota	5
Ohio	5
Oklahoma	5
Oregon	1
Pennsylvania	6
Rhode Island	6
South Carolina	18
South Dakota	1
Tennessee	16
Texas	3
Utah	1
Vermont	17
Virginia	11
Washington	1
West Virginia	1
Wisconsin	14
Wyoming	16

Supplement to American School Board Journal, December, 1924

TABLE 11.—EDUCATIONAL DATA FOR 1920—METHOD OF RANKS.

1	2	3	4	5	6	7	8	9	10
Ratio of the number of children in average daily attendance to the number of children of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking teacher preparing courses to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age	
196	.582	10.19	121.2	161.9	.193	40.95	\$27.62	\$871	\$37.56
197	.478	6.22	79.4	123.1	.176	44.15	8.23	484	11.85
198	.534	7.74	98.6	162.6	.138	22.28	81.60	1,279	72.91
199	.578	5.76	85.2	126.3	.066	48.54	7.64	477	13.07
200	.708	23.36	120.2	174.0	.124	40.44	45.12	1,272	72.12
201	.647	11.08	144.4	167.9	.334	32.88	42.11	929	56.94
202	.630	11.84	144.1	183.5	.076	31.77	35.41	1,124	50.13
203	.521	7.91	129.2	181.7	0	51.71	24.85	848	31.91
204	.080	13.43	143.8	178.0	.093	46.94	27.09	1,359	55.45
205	.908	5.64	98.0	133.1	0	48.17	21.63	518	25.79
206	.500	6.53	98.0	145.0	.123	45.81	4.59	426	9.72
207	.696	11.46	126.9	172.7	.270	43.07	56.69	932	70.68
208	.611	11.32	144.9	170.9	.205	36.67	31.15	1,081	44.32
209	.641	13.87	125.8	155.8	.173	45.95	35.95	964	50.18
210	.678	10.10	137.2	174.0	.170	36.94	42.20	827	62.44
211	.668	14.14	124.8	164.0	.307	32.39	42.86	761	56.71
212	.488	4.30	78.7	123.0	.200	46.74	7.69	413	11.56
213	.450	6.80	107.7	148.9	.138	55.61	18.23	723	20.39
214	.442	13.96	142.4	169.2	.100	34.32	25.42	603	35.49
215	.485	6.84	130.3	179.6	.132	45.45	12.06	962	22.81
216	.594	14.98	149.6	179.4	.146	33.32	28.97	1,262	46.75
217	.598	12.40	129.6	172.0	.308	38.41	46.50	911	54.60
218	.641	12.19	125.5	160.0	.179	40.16	46.77	882	58.04
219	.440	5.40	76.9	122.0	.084	42.59	7.66	926	9.26
220	.618	10.69	128.6	162.8	.347	37.98	22.35	797	33.41
221	.608	11.47	120.7	166.4	.061	37.63	56.18	958	88.88
222	.675	10.00	122.3	164.0	.173	33.59	41.60	765	57.37
223	.680	15.12	125.8	167.0	0	41.41	54.52	1,163	89.75
224	.534	12.44	144.3	174.0	.323	39.06	33.26	759	38.19
225	.620	9.53	151.3	189.0	.096	45.51	35.97	1,282	52.86
226	.550	4.75	120.5	165.0	.631	40.88	32.44	803	38.33
227	.576	12.77	148.8	188.0	.157	46.45	25.85	1,256	44.90
228	.595	4.47	91.8	134.0	.095	51.04	8.90	464	14.48
229	.646	6.87	127.4	166.9	.266	40.04	51.74	728	64.53
230	.607	13.12	130.7	165.0	.221	41.86	39.67	1,088	50.63
231	.559	7.19	100.5	166.4	.426	36.59	29.56	768	36.00
232	.760	16.72	137.5	152.0	.095	42.59	23.64	870	55.41
233	.592	8.57	139.0	176.8	.180	41.52	25.43	920	32.64
234	.513	9.75	142.9	182.1	.161	38.61	24.22	1,070	33.11
235	.582	6.00	76.0	109.6	.024	61.88	6.42	464	11.69
236	.558	10.03	112.4	167.0	.250	44.11	62.10	696	65.43
237	.646	5.49	98.5	133.5	.155	44.44	7.83	494	14.33
238	.528	10.41	112.0	155.6	.278	51.31	21.08	612	23.81
239	.726	12.04	138.5	166.4	.014	42.38	44.36	992	61.22
240	.596	15.00	131.6	162.0	.105	31.36	34.35	667	42.61
241	.509	6.12	102.2	147.0	.189	52.14	14.51	546	18.82
242	.683	14.90	128.1	176.4	.286	44.16	36.64	1,229	66.59
243	.591	6.19	102.8	138.9	.122	39.92	15.64	639	26.29
244	.540	12.85	138.9	175.3	.436	38.29	31.73	915	39.93
245	.707	10.38	117.4	152.0	0	39.72	48.50	869	79.50

TABLE 15.—STATE RANKS, 1920, IN CERTAIN ITEMS.

1	2	3	4	5	6	7	8	9	10	11	12
Ratio of the number of children in average daily attendance to the number of children of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking teacher preparing courses to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, principals, and supervisors	Total amount expended per child of school age	Sum of ranks	Rank of state	
47	39	46	46	20	18	43	43	45	393	45	
39	33	40	31	29	49	1	3	4	273	33	
30	43	45	43	43	7	46	44	44	385	44	
3	1	31	12	31	28	10	4	5	147	4	
13	22	33	19	5	45	14	17	14	202	21	
19	18	6	3	42	47	20	9	22	219	24	
41	32	19	5	47	4	32	25	35	271	32	
8	10	7	8	39	9	28	1	16	141	3	
23	44	43	44	49	8	36	41	37	364	42	
44	38	42	40	32	13	49	47	48	396	47	
5	20	23	15	11	20	3	16	6	123	2	
22	21	4	17	15	40	25	11	25	203	22	
17	9	24	34	21	12	19	14	21	183	12	
9	26	14	13	23	39	13	26	10	174	9	
11	7	27	28	8	46	12	31	15	190	14	
45	49	47	47	16	10	47	48	47	393	46	
48	37	36	38	28	2	38	34	40	359	39	
16	8	9	18	35	42	31	39	31	250	29	
46	36	17	6	30	15	41	21	39	281	34	
27	5	2	7	27	44	27	5	23	194	17	
25	15	18	16	7	35	9	20	18	181	11	
18	16	26	33	19	29	8	22	12	191	15	
49	46	48	48	41	21	45	49	49	443	49	
21	23	20	30	4	37	35	28	32	249	28	
12	19	29	24	40	38	4	15	2	196	19	
10	28	28	29	22	43	15	30	13	220	25	
6	3	25	21	46	26	5	8	1	173	8	
38	14	5	14	6	33	22	32	29	218	23	
20	30	1	1	36	14	18	2	19	170	6	
36	47	30	27	1	27	23	27	28	291	36	
31	13	3	2	25	11	29	6	24	172	7	
32	48	44	42	37	6	42	45	42	380	43	
15	35	22	22	12	30	6	33	9	195	18	
24	11	16	26	14	24	16	10	20	177	10	
34	34	39	23	3	41	26	29	30	283	35	
1	2	13	36	38	22	34	23	17	189	13	
33	31	10	9	18	25	30	18	34	234	27	
42	29	8	4	24	34	33	12	32	254	30	
29	42	49	49	44	1	48	46	46	402	48	
35	27	34	20	13	19	2	35	8	200	20	
14	45	41	43	26	16	44	42	43	354	40	
40	24	35	35	10	5	37	38	38	298	37	
2	17	12	25	45	23	11	13	11	168	5	
26	4	15	32	34	48	21	36	26	259	31	
43	41	38	39	17	3	40	40	41	343	38	
7	6	21	10	9	17	17	7	7	107	1	
28	40	37	41	33	31	39	37	36	356	41	
37	12	11	11	2	36	24	19	27	193	16	
4	25	32	37	48	32	7	24	3	222	26	

TABLE 12.—EDUCATIONAL DATA FOR 1922—METHOD OF RANKS.

STATES	Percentage of children under age and over, 1929	Ratio of the number of children in average daily attendance to the number of children of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of students taking teacher preparing courses to number of teachers employed	Percentage of high school graduates continuing education next year	Total cost, excluding salaries per pupil in average daily attendance
Continental U. S. . . .	5.96	.644	12.3	130.6	164.0	.259	45.8	\$37.7
Alabama	16.07	.548	8.0	95.8	130.8	.338	49.0	10.1
Arizona	15.32	.529	11.4	131.0	170.0	.356	50.0	69.5
Arkansas	9.35	.632	7.0	94.1	130.4	.197	52.7	5.5
California	3.33	.803	27.1	126.0	179.0	.210	46.1	81.3
Colorado	3.24	.700	16.2	123.2	174.1	.382	45.3	52.0
Connecticut	6.18	.682	13.4	152.1	184.3	.134	28.9	36.0
Delaware	5.87	.562	11.8	137.5	180.2	.156	50.9	29.3
Dist. of Colum. . . .	2.79	.724	15.8	149.1	178.0	.156	54.9	39.0
Florida	9.55	.629	7.4	103.1	136.0	.156	54.9	29.0
Georgia	15.29	.558	7.4	102.6	149.0	.059	55.4	7.7
Idaho	1.51	.717	15.4	132.9	169.0	.215	41.4	46.1
Illinois	3.36	.658	13.1	143.0	180.4	.253	40.4	44.3
Indiana	2.21	.689	16.4	137.8	163.7	.359	49.0	74.0
Iowa	1.08	.726	26.0	143.5	178.7	.227	37.0	51.1
Kansas	1.63	.727	17.5	135.1	165.0	.368	36.6	45.0
Kentucky	8.44	.604	5.9	92.3	125.0	.271	45.5	9.0
Louisiana	21.89	.522	8.3	112.4	148.6	.170	53.6	23.0
Maine	3.26	.694	17.2	150.3	174.0	.217	38.8	27.0
Maryland	5.56	.539	8.6	143.3	181.3	.156	40.6	29.0
Massachusetts	4.72	.638	16.4	149.2	180.0	.189	38.3	33.0
Michigan	3.04	.618	13.4	155.6	194.1	.657	43.7	70.0
Minnesota	1.84	.709	13.5	142.5	169.6	.291	40.3	61.0
Mississippi	17.16	.656	5.4	94.8	136.8	.099	54.9	3.0
Missouri	3.05	.675	12.0	132.0	167.7	.408	45.1	28.0
Montana	2.26	.651	15.3	139.0	171.0	.209	45.8	68.0
Nebraska	1.36	.749	15.2	140.1	171.0	.289	35.9	59.0
Nevada	5.95	.732	17.3	137.1	169.3	.017	61.7	59.0
New Hampshire	4.36	.575	14.4	147.3	171.0	.323	44.8	36.0
New Jersey	5.12	.642	11.1	156.0	188.7	.126	53.8	60.0
New Mexico	15.56	.501	9.1	117.5	170.5	.359	48.6	36.0
New York	5.06	.623	14.0	154.1	185.0	.183	55.6	44.0
North Carolina	13.10	.626	5.2	100.7	139.0	.097	65.1	16.0
North Dakota	2.11	.771	12.0	136.5	147.2	.442	42.9	41.0
Ohio	2.83	.695	16.2	149.8	174.4	.225	46.7	68.0
Oklahoma	3.76	.645	9.7	108.3	160.0	.452	50.6	30.0
Oregon	1.46	.764	18.4	147.0	168.6	.163	40.7	36.0
Pennsylvania	4.62	.619	11.4	151.9	179.3	.211	46.2	34.0
Rhode Island	6.47	.576	11.0	162.7	194.6	.150	40.4	34.0
South Carolina	18.10	.590	5.0	79.8	110.5	.010	62.4	9.0
South Dakota	1.68	.705	12.5	136.3	168.1	.381	41.9	63.0
Tennessee	10.31	.631	6.9	99.8	140.6	.293	44.6	12.0
Texas	8.32	.658	10.0	112.4	136.5	.383	56.8	24.0
Utah	1.89	.747	16.0	140.5	164.3	. . . .	46.6	46.0
Vermont	2.98	.690	20.0	145.1	164.9	.028	48.4	29.0
Virginia	11.16	.565	6.1	116.1	159.1	.270	48.7	25.0
Washington	1.68	.734	18.1	140.3	177.8	.387	46.2	60.0
West Virginia	6.41	.644	7.1	115.2	143.1	.166	51.7	22.0
Wisconsin	2.44	.610	15.1	150.1	177.7	.550	45.8	40.0
Wyoming	2.09	.727	12.0	139.4	167.2	. . . .	33.0	33.0

METHOD OF RANKS.

Ratio of number of school graduates continuing educa- tion next year	Percentage of high school graduates continuing educa- tion next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, prin- cips, and supervisors	Total amount expended per child of school age
6	7	8	9	10
259	45.8	\$37.72	\$1.166	\$55.22
338	49.0	10.05	602	16.19
356	50.0	69.24	1,558	73.26
107	52.7	5.22	738	15.18
210	46.1	81.55	1,849	127.26
382	45.3	52.09	1,107	79.57
134	28.9	36.65	1,479	62.13
156	50.9	29.33	1,216	46.37
156	54.9	39.47	1,484	71.09
059	54.9	29.64	637	34.01
	55.4	7.41	571	14.08
215	41.4	46.19	1,171	73.09
253	40.4	44.51	1,426	64.08
359	49.0	74.10	1,263	87.68
227	37.0	51.27	934	82.33
368	36.6	45.06	1,045	73.47
271	45.5	9.39	728	19.93
170	53.6	23.08	906	28.99
217	38.8	27.46	780	45.14
156	40.6	29.84	1,191	40.13
189	38.3	37.22	1,617	63.21
657	43.7	70.82	1,229	79.21
291	40.3	61.49	1,113	82.94
099	54.9	6.96	448	15.84
408	45.1	28.78	1,085	47.70
209	45.8	68.64	1,158	92.03
289	35.9	59.72	1,042	87.72
017	61.7	59.04	1,342	105.03
323	44.8	36.27	1,016	48.41
126	53.8	60.79	1,676	79.07
359	48.6	36.10	1,056	46.36
183	55.6	44.58	1,910	75.28
097	63.1	16.60	657	25.31
442	42.9	41.71	969	74.08
225	46.7	68.27	1,369	84.20
452	50.6	30.93	994	45.54
163	40.7	36.61	1,190	72.57
211	46.2	34.36	1,244	46.80
150	40.4	34.04	1,407	48.38
010	62.4	9.24	587	16.31
381	41.9	63.05	941	85.84
293	44.6	12.29	540	21.01
383	56.8	24.81	814	35.92
028	46.6	46.16	1,254	70.46
270	48.4	29.48	831	48.85
	48.7	25.93	696	30.06
387	46.2	60.30	1,475	91.32
166	51.7	22.57	912	40.96
050	45.8	40.24	1,266	57.91
000	33.0	65.39	1,006	98.52

CERTAIN RANKS.

Percentage of high school graduates continuing educa- tion next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, prin- cips, and supervisors	Total amount expended per child of school age	Total of ranks	Rank of totals
7	8	9	10	11	12
18	44	45	46	387	47
16	4	5	18	237	26
12	49	40	48	393	44
26	1	2	1	125	2
30	14	24	12	186	14
49	25	7	25	228	24
14	35	18	32	280	34
9	23	6	21	158	6
8	33	44	39	370	40
6	47	47	49	402	48
37	16	21	19	203	20
41	20	9	23	196	18
17	2	15	7	149	4
45	15	34	11	167	8
46	18	27	17	196	19
29	45	41	44	395	45
11	40	36	41	370	41
43	37	39	35	270	29
39	32	19	37	298	35
44	24	4	24	210	22
34	3	17	13	150	5
42	9	23	10	183	12
31	48	49	47	398	46
28	36	25	30	253	31
31	5	22	4	189	16
47	13	28	6	175	11
3	12	12	2	168	9
32	27	29	28	247	28
10	10	3	14	169	10
20	28	26	33	305	37
5	19	1	15	160	7
1	42	43	42	377	42
35	21	32	16	211	23
22	6	11	9	140	3
15	31	31	34	274	33
38	26	20	20	189	15
25	29	16	31	236	25
40	30	10	29	255	32
2	46	46	45	418	49
36	8	33	8	194	17
33	43	48	43	381	43
4	39	38	38	301	36
23	17	14	22	203	21
21	34	37	27	250	30
19	38	42	40	357	39
24	11	8	5	105	1
13	41	35	36	336	38
27	22	13	26	183	13
48	7	30	3	243	27

TABLE 13.—STATE RANKS, 1910, IN CERTAIN ITEMS.

STATES	Percentage of illiter- ates ten years of age and over, 1910	Ratio of the number of children in average daily attendance to the number 5 to 17 years of age inclusive	Percentage of attendance in high school	Average number of days attended by each child enrolled in school	Average number of days that schools were kept open	Ratio of number of teachers preparing courses to number of teachers employed	Percentage of high school graduates continuing educa- tion next year	Total cost, excluding salaries per pupil in average daily attendance	Average annual salary of teachers, prin- cips, and supervisors	Total amount expended per child of school age	Sum of ranks	Rank of sums
	1	2	3	4	5	6	7	8	9	10	11	12
Alabama	47	48	42	46	44	23	8	49	28	46	381	43
Arizona	45	45	30	39	38	4	11	21	3	14	250	30
Arkansas	38	34	46	47	45	42	26	48	29	44	399	47
California	17	26	2	6	8	15	29	5	5	2	115	3
Colorado	16	16	5	31	25	18	22	17	16	19	185	12
Connecticut	30	11	18	5	5	21	47	19	21	21	198	20
Delaware	34	43	23	26	12	45	49	35	40	33	340	38
Dist. of Columbia	24	3	4	4	9	11	17	4	1	4	81	1
Florida	40	18	40	41	46	44	13	40	35	40	357	40
Georgia	44	44	37	34	31	40	23	44	39	45	381	42
Idaho	5	15	29	36	36	22	5	14	9	22	193	18
Illinois	19	17	21	9	16	14	39	11	11	10	167	7
Indiana	10	5	10	23	29	16	31	24	14	23	185	14
Iowa	1	14	6	18	13	32	35	30	38	27	214	23
Kansas	6	10	17	19	22	10	45	25	15	28	197	19
Kentucky	37	38	41	42	42	6	43	42	45	41	377	41
Louisiana	49	49	44	33	37	12	6	34	34	34	332	37
Maine	20	2	11	21	24	26	32	31	47	31	245	29
Maryland	32	46	32	25	4	37	48	39	31	36	330	35
Massachusetts	25	6	1	1	3	20	46	13	10	8	133	4
Michigan	15	9	16	7	15	3	30	27	25	24	171	8
Minnesota	9	12	22	22	27	7	21	16	33	16	185	15
Mississippi	46	40	43	45	43	43	9	46	41	48	404	48
Missouri	21	31	27	27	26	5	36	33	24	32	262	32
Montana	23	32	24	24	6	35	25	3	8	5	185	13
Nebraska	3	25	12	20	11	9	27	22	26	25	180	9
Nevada	31	41	9	28	30	46	1	1	4	1	192	17
New Hampshire	22	22	8	12	21	39	34	28	44	26	256	31
New Jersey	27	29	26	8	7	25	20	6	7	6	161	6
New Mexico	43	39	39	48	49	30	10	33	12	39	345	39
New York	26	19	15	2	2	27	18	26	2	9	146	5
North Carolina	42	33	47	49	48	29	3	45	49	47	392	46
North Dakota	11	21	35	32	28	36	4	9	32	12	220	24
Ohio	13	8	14	11	17	41	38	20	22	15	199	21
Oklahoma	28	23	39	43	33	2	19	32	20	35	274	33
Oregon	2	4	20	17	35	31	41	10	23	7	190	16
Pennsylvania	29	27	28	10	18	1	44	12	37	17	223	26
Rhode Island	33	30	7	3	1	17	42	18	13	18	182	10
South Carolina	48	36	48	44	47	28	2	47	36	49	385	44
South Dakota	8	35	25	29	19	24	15	8	27	20	210	22
Tennessee	39	28	45	37	41	47	40	43	42	43	405	49
Texas	36	42	31	40	40	33	12	37	19	37	327	44
Utah	7	13	33	15	20	48	24	7	6	11	184	11
Vermont	18	1	19	13	23	34	33	23	48	29	241	28
Virginia	41	47	36	38	34	38	28	41	46	42	391	45
Washington	4	7	3	14	14	19	7	2	17	3	90	2
West Virginia	35	24	49	35	39	13	16	38	43	38	330	36
Wisconsin	12	37	13	16	10	8	37	29	30	30	222	25
Wyoming	14	20	34	30	32	49	14	15	18	13	239	27

TABLE 17.—STATE RANKS BY BOTH METHODS.

States	1910		1918		1920		1922	
	Ranks	Ayres	Ranks	Ayres	Ranks	Ayres	Ranks	Ayres
Alabama	43	45	49	48	45	47	47	45
Arizona	30	18	16	4	33	8	26	9
Arkansas	47	46	48	47	44	44	44	43
California	3	2	2	2	4	1	2	1
Colorado	12	12	7	16	21	17	14	19
Connecticut	20	13	25	11	24	10	24	20
Delaware	38	34	40	36	32	33	34	31
Distriet of Columbia	1	4	8	5	3	9	6	17
Florida	40	41	45	39	42	37	40	41
Georgia	42	44	46	44	47	46	48	46
Idaho	18	20	15	19	2	5	20	21
Illinois	7	11	22	24	22	23	18	16
Indiana	14	17	12	14	12	15	4	5
Iowa	23	30	4	7	9	20	8	11
Kansas	19	24	18	26	14	21	19	24
Kentucky	41	40	41	42	46	49	45	47
Louisiana	37	39	38	43	39	40	41	40
Maine	29	31	33	29	32	29	33	33
Maryland	35	33	36	35	34	36	35	34
Massachusetts	4	5	9	9	17	11	22	12
Michigan	8	19	5	10	11	16	5	8
Minnesota	15	21	11	18	15	18	12	14
Mississippi	48	47	47	46	49	48	46	48
Missouri	32	32	29	32	28	30	31	32
Montana	13	7	19	1	19	3	16	10
Nebraska	9	22	26	22	25	25	11	13

TABLE 18.—CORRELATIONS BETWEEN ITEMS USED IN RANKING, 1922.

	Ratio av. da. att. to No. 5-17	Per cent in high school	Av. da. att. per enrollee	Length of session	Teacher preparation	High school grad. continuing	Cost per av. da. att.	Av. salary of teachers	Total cost per 5-17	State ranks
Illiteracy.....	0.7667	0.7713	0.4946	0.3466	0.2989	-0.5033	0.6577	0.3637	0.7455	0.7472
Ratio av. da. att. to No. 5-17.....		0.6865	0.2557	0.0674	0.0774	-0.3473	0.4997	0.2446	0.6613	0.3746
Percent in high school.....			0.3715	0.3628	0.3979	-0.2601	0.3801	0.3694	0.3801	0.3943
Av. da. att. per enrollee.....				0.3980	0.1004	-0.4341	0.4802	0.7274	0.5124	0.6721
Length of session.....					0.0706	-0.4104	0.5228	0.8091	0.5250	0.6506
Teacher preparation.....						-0.3024	0.2432	0.0379	0.2046	0.2758
High school grad. continuing.....							-0.4085	-0.1394	-0.3870	-0.3100
Cost per av. da. att.....								0.6227	0.9341	0.8636
Av. salary teachers.....									0.6484	0.7528
Total cost per 5-17.....										0.9067

1922 six states rank alike. In 1910, thirty-five states do not differ by more than four points in rank. In 1918 there are 30 states, in 1920, 31, and in 1922, 35 within four points by both methods. This means that three-fourths of the states are shifted in rank less than five places by a change from one method to the other. There are, however, some manifest changes in ranking of some states, especially in those that had ranked high in matters of cost. Illiteracy, average daily attendance, per cent of school census in attendance and per cent of high school graduates continuing in school all seem to be factors in making a change in rank.

The similarity in the rank of so many states by the two methods makes advisable a statement of relationship between some of the items used in the method of ranks for 1922. Correlations are given in table 18 between the state ranks in the various items, rather than between the actual data for these items.

Significant correlations—those greater than 0.500—are found to exist in more than one-third of the possible correlations. Very low correlations—less than 0.200—are found between:

1. Ratio of av. da. att. to school census, and length of session;
2. Ratio of av. da. att. to school census, and ratio of no. in nor. tr. courses to no. teaching positions;
3. Av. da. att. per enrollee, and ratio of no. in nor. tr. courses to no. teaching positions;
4. Length of session, and ratio of no. in nor. tr. courses to no. teaching positions;
5. Teachers' salaries, and ratio of no. in nor. tr. courses to no. teaching positions;
6. Teachers' salaries, and per cent of high school graduates continuing their education.

Inverse correlations are found between per cent of high school graduates continuing their education and all other items, including the rank of the sum of ranks. It so happens that the percentage of high school graduates continuing their education the following year is higher in those states having few graduates, and ranking low in the other eight points.

All correlations with illiteracy are high excepting those of length of session and teachers' salaries. The correlation between length of

session and teachers' salaries is high, which indicates that the teacher is paid largely upon a time basis. The financial items correlate well with each other, and with the final rank of states.

There are no insignificant correlations between any of the ten items and the final state rank. That with per cent of high school graduates continuing their education is inverse, with ratio of number preparing to teach to number of teaching positions is rather low, and with ratio of av. da. att. to school census, and with per cent enrolled in high school, are both of fair size.

The correlations do not furnish any real reason for the elimination of any of the items used in the method of ranks. Correlation between the two sets of state ranks obtained by the method of index numbers, and by the method of ranks for 1922 is high, 0.9350. Three-fourths of the states do not differ by more than four points by either method. This leads us to present both plans giving those interested a choice of methods to be used when an educational rank of the states is desired.

It should be remembered that the method of ranks does not furnish a comparison from year to year, either for states or for the United States. One of the advantages claimed for the method of index numbers is that it is possible to measure progress in state educational systems from time to time, as well as to compare attainments with neighboring states for certain years. It is possible, however, by use of the method of ranks, to show progress in particular items, in states or in the United States as a whole. Actual figures, rather than state ranks, are needed for this purpose. This would involve weighing each item. Weighing is more or less an arbitrary matter upon which it is extremely difficult to reach an agreement generally acceptable to those interested in the problem. It is also a matter of dispute whether or not an arithmetical average, or an aggregate of these weighted items, gives the best basis for a comparison. All that can be said is that when the computation is done in this particular, and perhaps peculiar manner, certain values result. With this in mind, state ranks, and indices showing progress, need to be used with a great deal of caution.

School Finance Problems — How Solved

"Some critics affirm that we are attempting more than is socially desirable, educationally reasonable, or economically possible, while others suggest that we are wasteful, inefficient and disorderly in what we are doing, however worth while our program may seem to be."

With this paragraph, Prof. Jesse B. Sears of the Leland Stanford University introduces a discussion on the school finance problem in a recent address. He contends that the public wants more of the schools but dislikes to pay the bill, and then points to growing budgets and expanding school debts as evidence that public education is safe. He then contends that "the theories and principles which underlie our plans of school support are not well worked out, if we judge them by actual results obtained.

All the children of all the people are not equally provided for. The burden of cost is not equally distributed. Education in the higher studies is not altogether free.

"We cannot pretend that our investments in school property are giving us a fair return in all cases. The turnover in teaching staff we know represents heavy loss. Our policy of going in debt is ridiculous in its waste. We know little about the cost of the subjects in our curriculum. Our method of handling purchases, except in large systems, is inefficient and wasteful. We do not know what is a reasonable part of the budget for instructional service, for instructional supplies, or for any single item of overhead. We know that systems vary widely in all these items, but we do not know why they vary.

"We need a clearer statement of our theory of school support. We have worked on the assumption that education is definitely a function of the state. The facts are that the state is in control, but that is not the major source of support. In the United States, the state, the county, the township, and the local district all participate in the support and the control of the school. What should be the proper distribution of responsibility among these several political units?

"This is not merely a problem in finance—none of these problems is financial solely—but they are rather problems of administration and of social and political policy. The demand that equal educational opportunity be provided for all children cannot be realized by the present combinations of the various political units. Wealth is not distributed evenly throughout the different states nor in any direct ratio to school population or to school needs.

"Again, we need some careful studies that will help to throw light upon our capital outlay investments. Almost nowhere do we find trustworthy figures showing the present value of the school plant. Year after year large sums are taken from the school income for building schoolhouses. We keep no track of the investment. What interest the money might have borne had it been left in private hands for re-investment and the annual depreciation on the buildings are rarely or never figured. To some, this kind of accounting for public outlays will seem to be unnecessary and even harmful.

"The school-survey movement has developed the idea of efficiency studies in school administration and has contributed much in the way of analysis and technique for use in this connection. Yet an examination of city school reports and of current educational literature does not show that the idea of cost studies or of cost accounting has been carried very far. In this respect we must admit that school administration is somewhat behind administration in business, industry, and commerce, where every proposed change in policy and program is preceded by careful cost estimates and followed up by careful cost studies. Surely of two equal educational values we ought to purchase the one costing the least, and this we can do only if we know their cost as well as their educational value.

"If we were asked to draw a floor plan that would be typical of the office of an elementary-school principal, or of a high-school principal, or of a superintendent, a registrar, a research bureau, or a business office, and then to list and describe suitable equipment and furnishings for each of these offices, we should have great difficulty. We have no standards of any sort for any of these important features of the school plant and we do not know what their provision represents in overhead cost. We should quit using janitor's closets and scrap ends of corridors and we should not have too many magnificent suites for school offices. We should try to approximate standards which are as well suited to school management as are the scientifically organized and equipped offices of the large corporation in business or industry.

"What is the best size for the rooms of a high school or elementary school or kindergarten? We have traditions and prejudices, but very little scientific basis for answering this question. Yet, it is a financial question of large importance. We need to know for each type of school and for each type of subject matter what is the best size of class. Second, we need to know how nearly possible it is to organize classes of maximum size. In the light of these two sets of facts we should determine the size and the number of sittings per room."

(Concluded on Page 132)

Business Executives of American Schools

Secretaries, Clerks, and Business Managers for Boards of Education.

H. W. ANDERSON
Secretary, Board of Education, Kalamazoo, Mich.

Mr. Anderson brings to his task both a good education and splendid business experience. He was associated with several industrial enterprises in an executive capacity before he became



H. W. ANDERSON,
Secretary, Board of Education,
Kalamazoo, Michigan.

the secretary of the Kalamazoo board of education.

Born in the state of Michigan in 1884, he graduated from a high school and later attended Kalamazoo College. He became the auditor for the board of education in 1913 and after serving for one year was chosen business manager. He is in full charge of the business affairs of the school system.

ERNEST P. CARR
Superintendent-Secretary, School Board, Marlborough, Mass.

Mr. Carr, who has served in his present capacity for twelve years, was born June 14, 1872. Thrown on his own resources at an early



ERNEST P. CARR,
Superintendent-Secretary, School Board,
Marlboro, Mass.

age, he hired out at thirteen on a farm where he worked on farms four summers and attended school winters. At the age of seventeen he entered the Cortland, N. Y., normal school. He was again obliged to work on a farm and then taught school.

He graduated from the normal in June, 1894, and was elected principal of the academy at

Whitney's Point, N. Y., where he taught three years. The quality of the work done by him and his assistants caused the state department to rate the school as a high school.

THEODORE H. SCHOENWETTER
Secretary, Board of Education, Santa Monica, California

The secretary, chosen by the Santa Monica board of education, and who serves also in the capacity of business manager, brought to his office previous training which fitted him specially for the task in hand. Besides a high school training, he graduated from the school of commerce of the University of Wisconsin in 1909. In the year 1910 he taught commercial subjects in the high school at Rockford, Ill., and the next year pursued the same teaching lines in the high school at Racine, Wisconsin. In the year 1912, the Santa Monica City board of education offered him a position as commercial teacher. This offer was accepted, and he remained in the city of Santa Monica ever since that year.

From that position he was promoted to the head of the commercial department, and later made auditor and financial manager for the associated student body. In the year 1922, he



T. H. SCHOENWETTER,
Secretary, Board of Education,
Santa Monica, Calif.

was made secretary to the board of education. On June 30, 1924, in appreciation of services rendered, the board of education unanimously voted the secretary a substantial increase in salary.

Mr. Schoenwetter takes an active part in municipal development work of the city. In the year, 1922, he was elected to the position of secretary of the association of school secretaries and business managers of southern California, and in the year 1923, was elected to the position of president of the same organization; and having been so closely connected with the school organization, that is, with superintendent, principals, and teachers, the secretary has been able to successfully analyze the true needs of the school department.

JOHN F. SKEEL
Clerk, Board of School Inspectors, Joliet, Illinois

Mr. Skeel fills a dual position. He not only holds the office above mentioned, but is also the clerk for the Joliet township high school board. He brings to his office not only the experience of an instructor but also that of a business manager. He has served both as principal and superintendent and was also for a time employed as accountant by large corporations.

He came to Joliet in 1897 as a clerk and assis-

tant superintendent, a position created by the board of education to fit his qualifications. The plan proved so satisfactory that he was re-elected again and again, and is now serving his twenty-eighth year.

His success in the financial matters of the



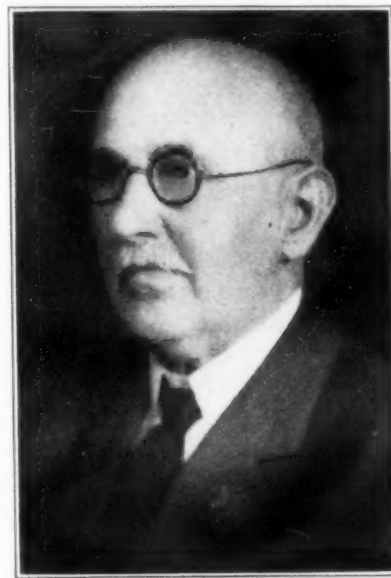
JOHN F. SKEEL,
Clerk, Board of School Inspectors,
Joliet, Illinois.

school system has been marked. Owing to the growth of the population new schoolhouse construction has been almost constantly in progress. His services have been of eminent value.

ADAM ARNOLD STERMER
Clerk-Treasurer, Board of Education, New Philadelphia, Ohio

The background of Mr. Stermer's career before entering upon his present task is that of a schoolmaster's life. He taught in country schools and then drifted into official position becoming a township clerk. By virtue of this position he became also the clerk for the township board of education.

On January 1st, 1924, Mr. Stermer entered upon his seventeenth year as a member of the

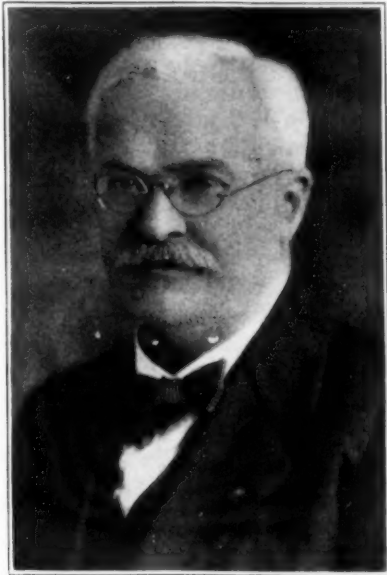


ADAM ARNOLD STERMER,
Clerk-Treasurer, Board of Education,
New Philadelphia, Ohio.

board of education of the city of New Philadelphia and his twelfth year as treasurer and clerk of the board. His strength has been largely in his organizing ability and his keen and active cooperation in the things that make for growth and progress. It has been largely due to his idealistic tendencies that he has chosen this field of service in preference to a more lucrative calling.

E. G. GUTHRIE**Secretary, Board of Education, Fargo, N. D.**

Mr. Guthrie was born in England, more than sixty years ago, coming to America in his teens, having a very limited education compared with present day advantages. He came to North Dakota over forty years ago, before it had attained statehood. He was employed in the county office for eight years until 1911, when the position of secretary of board of education of Fargo was offered him, which he accepted. He



E. G. GUTHRIE,
Secretary, Board of Education,
Fargo, N. D.

has been endorsed every year since. His duties have been increased by addition of business manager and executive agent of the board, which has brought added remuneration.

Having served as deputy county auditor of Cass County, gave him much acquaintance with tax detail and finance, so that he was reasonably well equipped to carry on the work successfully for the board.

EDWARD L. McCUNE
Clerk, Board of Education,
Columbus, Ohio

The first portrait of a school secretary published in the AMERICAN SCHOOL BOARD JOURNAL was in 1891. It was the portrait of Ossian D. Barron, the secretary of the board of education at Columbus, Ohio. In this issue, 33 years



EDWARD L. McCUNE,
Clerk, Board of Education,
Columbus, Ohio.

later, we publish a portrait of the present secretary, Mr. Edward L. McCune.

Mr. McCune was born at Columbus, Ohio, March 27th, 1855, and received his education in the public schools of that city. He completed his education in the University of the South,



CHARLOTTE BYRUM,
Secretary, Board of Education,
El Dorado, Kans.

Sewaunee, Tenn. He was admitted to practice law in Ohio in 1877, was connected with the Pennsylvania Railroad in the capacity of division claim agent for a number of years, was director of public safety of Columbus, Ohio, during the years 1910-1911, and volunteered his services as director of Red Cross work in Franklin County, Ohio, serving as such during the full period of the world war. He has long taken an active interest in educational affairs, and was a member of the Columbus board of education for five years, two of which he served as its president, and in the fall of 1904 was elected a member at large of the same, entering upon the duties of that office in January, 1905. In the fall of 1920 he was elected clerk of the Columbus board of education and is serving in that capacity at the present time.

MRS. CHARLOTTE DOUGHERTY-BYRUM
Secretary, Board of Education,
El Dorado, Kansas

Mrs. Byrum was chosen for her present position seven years ago. She also serves as secretary to the superintendent, the two positions working well together. During her term of service the board erected two large grade buildings and one of the best junior high schools in the state.

Mrs. Byrum is a native of Colorado. She was born at Starkville in 1897, and came to El Dorado several years later.

GEORGE J. SMITH
Secretary, Board of Education, Milford, Conn.

Mr. Smith is one of Milford's enterprising business men who finds time to look after the

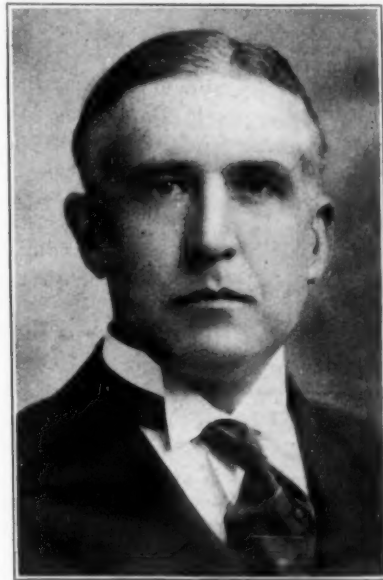


GEO. J. SMITH,
Secretary, Board of Education,
Milford, Conn.

secretarial duties of the local school system. His other activities have covered a wide range. He has served for six years as deputy judge of the town court, organized the local chamber of commerce, and was the charter president of the Rotary club.

J. GUTHRIE LEEDHAM
Secretary-Business Manager, Board of Education, Lincoln, Nebraska

Mr. Leedham comes from the ranks of the teacher. He taught for six years and then went



J. GUTHRIE LEEDHAM,
Secretary-Business Manager, Board of Education,
Lincoln, Neb.

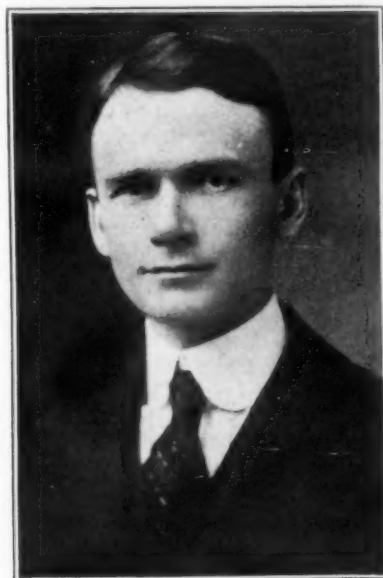
into the postal service. He became the assistant postmaster at Lincoln and the acting custodian of the United States government buildings.

He came into the service of the Lincoln board of education in 1916 at \$2,000 a year. At present he is on a three years' contract and receives \$5,000 a year.

Mr. Leedham is a native of Illinois. He was born near Springfield December 9, 1875, and was educated in the schools of McLean County.

EDWIN C. WADE
Secretary-Superintendent,
Bluefield, West Virginia

Mr. Wade became secretary-superintendent of the Bluefield schools in 1917 and has served in this capacity continuously with the excep-



E. C. WADE,
Secretary, Board of Education,
Bluefield, W. Va.

tion of two years, during which time he served in a similar position in Florence, South Carolina. Under the administration of Mr. Wade the school enrollment, the number of teachers

(Concluded on Page 132)

Should the School Secretary be Under the Direction of the Superintendent?

A Reply

T. H. Schutte, Oregon Normal School, Monmouth, Oregon.

On page 53 of the SCHOOL BOARD JOURNAL for September, 1924, is an article entitled "Should the School Secretary Be Under the Direction of the Superintendent?" It was written by George W. Gerwig, secretary of the board of public education, Pittsburgh, Pennsylvania, and read before the Department of School Administration, Washington, D. C., July 3, 1924.

We wonder, first of all, what impression the paper made upon the group of school administrators who heard it, and whether it was followed by a discussion from which conclusions could be reached. We wonder further, what would be Mr. Gerwig's reply to the question he raises.

We have no cause to distrust the integrity, sincerity, or ability of the author of the article cited. We do, however, doubt the advisability of continuing the dissemination of educational literature of this type. A vital administrative question is raised, but if an answer is attempted it is so vague that the reader can not be sure what it is. Its indefiniteness is such as to admit of varying interpretations. The general tone of the paper is such as to leave the reader free to answer either in the affirmative or in the negative, and to change his answers at will.

Certainly we have no objection to one's proposing educational questions without answering them, especially without giving conclusive answers. We do criticize the presenting of questions and answering them vaguely. Some of the most valuable educational literature merely raises questions. Whole volumes of this type may readily be cited. This kind of literature is often the incentive or driving force which impels the reader to thought and action. On the other hand, literature which vaguely answers questions is fraught with danger. Now we do not wish to intimate that the author of the article under discussion was intentionally evasive. However, if he has reached a definite conclusion he has failed to state it. If his conclusion is that which his article seems to imply, we must enter an emphatic protest, and shall try briefly to substantiate our position. Let it be stated specifically, that the writer understands Mr. Gerwig to believe that the school secretaryship should be an office on a basis equal or nearly equal in status to that of the superintendency.

The article is couched in excellent English and contains much valuable material. Indeed, one of the dangerous things about it is that it has so many good ideas which do not bear at all upon the topic. The unwary reader is likely to be carried away by the good ideas, and presently find himself accepting also the suggestion that the secretaryship or business department in a school system should have power equal to that of the superintendent. Let us look for a moment at some statements in the paper:

"It is self-evident that the solution of this problem should be approached solely from the standpoint of the best interests of the school and the child rather than from that of the preferences or prejudices of any single official." Surely nobody would take issue with this sentiment.

"Upon the size and character of the task depends the type of organizations best suited to its accomplishment." Here again, is good sound sense. But size and character of no magnitude nor type would ever dictate that the business

secretary should not be subordinate to the superintendent and under his direction.

We find again mention of "three outstanding types of organization. First, that of simple, arbitrary autocratic control. This was largely the Prussian type and the type of the old autocracies. Second, the control by the multitude in which all have part, regardless of ability or preparation. This type found its extreme example in Russia recently. Third, the representative type, in which the whole people delegate their power and authority to selected ones of their own number, chosen because of expert knowledge, special ability, or unusual skill and wisdom, to represent and act for the whole."

The world is long past the period of exclusive individual action. The success of any group endeavor in human life depends upon the willingness and the ability of the group to select from its entire number those specially qualified and best suited to act for the welfare of the entire group.

We recognize the three possible types of organization, namely, ultra autocratic, ultra democratic and representative types of control. We can find no fault with the idea that ultra individualistic action is undesirable, nor with the theory that selection of the most competent and worthy representatives for positions of control and management is necessary for the highest degree of success. However, we do not see that making the secretarial or business department of the board of education subordinate and subject to the direction of the superintendent implies autocratic control. But let it be emphasized that unless the school system is to be a headless organization, sanction must lie somewhere. It should belong to the superintendent, who is responsible to the people through the board of education.

A rather lengthy discussion embodying many good ideas is followed by the ensuing remarks: "The vital problems constantly before a school system, therefore, since they do not deal with a single individual or a preferred class, but with the most sacred rights of all the children, and all the people, may not rightly be solved by any one single individual. They are best solved by a composite judgment, properly arrived at, after a full consideration of all the various interests involved. It is not wise to attempt to make an arbitrary separation between the educational and business interests of the school. Less wise is it to attempt to put either education department or business department in complete control. There should always be complete cooperation between the two departments, rather than domination by either one."

There is much good administrative philosophy mixed in with the dangerous in the quotation given above. Surely no one would imagine that a school system should be operated for the benefit of any individual or group of individuals. Shall we assume that such will become the case when the business department is put under the direction of the superintendent? Is it necessary or probable that such an arrangement would result in arbitrary, autocratic, and ill-considered control directed by the prejudices of one person? It might do so, but if so it would prove that the board of education had failed miserably in selecting a superintendent. Such a superintendent would be a misfit

whether the business department were under his control or not.

That there should be cooperation between the superintendent and the business department is surely conceded by all who have any knowledge of school administration. So too should there be cooperation between the business manager and his stenographer, but that does not mean that the stenographer should not work under the direction of the business manager.

Fear of autocracy in the superintendency is again betrayed in the following remarks: "The levy of this tax, and the amount that may be fairly required at any one time is far too vital a matter to be determined by any single citizen. The preparation of a proper budget is the very heart of any year's program. Its success absolutely requires composite judgment in which every single angle of every question is most carefully and capably studied." We heartily agree with these statements, but again we must raise a question: Does putting the business department under the direction of the superintendent mean that these sacred principles will be violated? Will their security be assured by the fact that the business department is made coequal with the educational department, or will the superintendent thereby be deterred from carrying out any policy not approved or comprehended by the business manager? Obviously, the coequal relationship is sufficient to render nil the service of the best and most scientifically trained superintendent. Under such an arrangement the business manager should be an educational specialist for he would have control of both the business and the educational department. Indeed, he would control the entire school system.

It is pointed out that a building program, the selection, stimulation and management of school employees, the course of study, the discipline, the educational philosophy, the incentives, motives, and educational ideals, the physical, mental, and spiritual well-being of all concerned, etc., should not be entrusted to the single uncontrolled judgment of any individual, however brilliant he may be. Certainly not. And we would add that only a thoroughly incompetent and unscrupulous superintendent would hope to operate upon such a basis. Would such a calamity be averted by making the business department coequal in status with the education department? We think not. The statement that a well organized school system has thoroughly trained and competent experts in all departments and that they work in cooperation for the welfare of the whole system rather than at variance or upon individualistic planes of procedure is true. But does this mean that none is subordinate to another?

Perchance we have in some measure misinterpreted the article in question. We repeat that we make no attack upon the sincerity or integrity of the writer. We understand him to believe that the secretary of the board of education, or the business manager, should not be under the direction of the superintendent, but coequal with him. This is dangerous administrative philosophy and will sooner or later wreck any school system using it. In historical or political science parlance, such an arrangement lacks sanction. In fact, it makes the superintendent, the chief education expert, subordinate to the business department. He can set up no policy of administration or education which is not agreeable to the business manager, for he who controls the purse controls the school system. The superintendent thus becomes subordinate and subservient to the business department. In any business enterprise, authority must be fixed somewhere. Someone must have power. A committee in charge of executive

(Concluded on Page 119)

An Outline for the Supervision of Instruction in the Small High School

M. E. Clark, Principal, Geo. Biddle High School, Cecilton, Maryland.

The duties of the principal of a small high school are obviously many, a principal who is teaching, perhaps, six periods per day, with only two vacant periods. Under such circumstances, many principals feel that they cannot attempt supervisory work in addition to the daily class routine, clerical, disciplinary, and managerial tasks.

Someone has said that the principal should not be too conscientious, that he must know when to let some things "slide." If that is the case, he must use his judgment in deciding which of his manifold duties may be delegated to assistants and pupils, which he may judiciously neglect, and which he must perform personally in a thorough-going systematic way. This is, after all, merely a matter of system. By careful planning, he can arrange to supervise a certain number of class periods per week, and accomplish a definite improvement in the quality of the classroom instruction. Since education is the great aim of the school, too careful attention cannot be paid to improving the actual work of the classroom teacher. Far too many high school teachers are inadequately prepared in subject-matter and in method, not to mention discipline, for the principal to avoid this most important feature of his program. A mere business visit is not enough. He must "sit through" class after class in the recitation room, not only to know what is going on (important in itself); but, to "get a line" on the teacher's work, and to know whether his presence in the school is a hindrance or a help, whether anything can be done to help him in the way of suggestions, references, loan of books, etc.

The principal must be prepared to meet objections to supervision, and to overcome them tactfully. He must place before the minds of the teachers the general welfare of the school, and the necessity of cooperation in this major part of the school program. He must give generous credit for clever ideas and good work, when he sees it.

In our school in 1923-1924 we adopted the following plan for which I claim a fair measure of success:

Beginning with October, after the school was in smooth running order, for each month we selected a certain phase of the work, and the principal planned observation of that phase in each classroom visited. The topics used are as follows:

October, The Aim or Purpose of the Recitation.

November, The Use of Questioning.

December, Illustration as an Aid to Classroom Instruction.

January, The Use of the Blackboard.

February, Pupils' Reactions to Instruction.

March, Types of the Recitation Suited to Our School.

April, Making and Using Lesson Plans.

May, The Assignment.

June is too busy a month for us to attempt anything in the way of supervision; as, in the small high school, the principal must devote a great deal of time to final examinations, reports, records, ordering supplies for next year, class day, commencement, filling blanks for graduates who wish to enter other schools, etc. We have, then, this outline for eight months. We realize that it might be improved; but, it may serve as a beginning for those who have not attempted supervision. In the larger high school I should think that the same sort of work might be done by the heads of departments, thus, relieving the

principal, who, of course, always has numerous duties and responsibilities. Each teacher should have a copy of the plan for the month, and access to the reference books on the topic. In my own case, I made carbon copies of the sheets, and took my own pedagogy texts to school, where the teachers might read them.

After each class it is wiser to hold a personal conference with the teacher, discussing the lesson, pointing out good things, and suggesting improvements. In most cases, I did not have the opportunity for such a conference. Relying upon notes taken during the class period, or jotted down after the recitation, at the end of the month, I made out a written criticism, with constructive suggestions for each teacher; sometimes I wrote a general criticism of all work observed. These failed, to a certain extent, because so long a time elapsed between observation and criticism, and also because criticism written down in cold type looks more harsh than it is intended to be, and, perhaps, brings upon the principal unmerited resentment. The majority of the teachers, however, favored having such a sheet, if the conference could not be managed.

October. The chief object of supervision during October will be the aim or purpose of the recitation. For general objectives of high school instruction see "Maryland High School Standards," pp. 7-14.

For each recitation unit, whether one or more class periods, try to keep in mind the general aims of the subject, and a specific aim for that part of the year's work. The principal, in classroom visiting, will try to discover what the purpose is, and whether the teacher takes steps to attain it. Discussion of purposes will follow later. The basis of this observation is as follows:

What was the purpose?

Was it appropriate or worth-while?

Was it definite?

Was it clearly obvious to the observer?

Were the pupils clearly aware of it?

Was the lesson controlled by it?

Was it definitely achieved?

Reading references:

Burton, "Supervision of Instruction," pp. 103-108.

Colvin, "Introduction to High School Teaching," pp. 335-357.

Tryon, "Teaching of History," pp. 9, 10; 176-178; 216.

Betts, "The Recitation," ch. 1.

Cubberley, "The Principal and His School," p. 401.

Maryland High School Standards, p. 56ff.

McMurry, "How to Study," ch. 3.

Parker, "Methods in High School," pp. 307-312.

Earhart, "Types of Teaching," pp. 220-227.

November. The use of questioning.

References: (see October list).

Parker, pp. 465-474.

Earhart, pp. 97-101; 227-228.

Betts, ch. 3.

Burton, pp. 84-95.

Colvin, ch. 15.

In judging questions one must consider the adaptability of the teacher, clearness and rapidity of thought, sense of relative values, skill in expression; whether the questions are addressed to the group, in what order, how distributed; if drill questions, how rapid (thought questions slower); repetition of questions and yes or no questions.

For observation Parker gives the following:

Did the class exercise call for rapid-fire questioning, or slow, thoughtful questioning? Was the pace adapted to the thought-movement required?

Did it seem that the teacher had carefully prepared the main central questions?

Parker.

Did the questions elicit a thoughtful response from the pupils?

Did all pupils feel responsible for every question?

Were the questions fairly distributed so that many pupils were called on?

Was the teacher skilled in tactful commendation or reproval adapted to each pupil's needs?

Did he make the recitation a place for group thought, or did he waste time in pursuing or helping individuals?

(I placed these questions on the November sheets; as, I think them very good, and as we had only one copy, I was afraid that all teachers might not be able to read it.)

December. Illustration as an aid in classroom instruction.

References:

Adams, "Exposition and Illustration in Teaching," pp. 195-197; 242-246; ch. 10, 13, 14, 15.

Earhart, "Types of Teaching," pp. 221, 229.

Betts, "The Recitation," pp. 15, 16; 45-48; 94-96.

Please think about the following quotation: "The teacher's wisest course is to get his mind filled with the subject he is to teach, and then browse about among all manner of books, and mix with all manner of men. Illustrative incidents will occur in the most unexpected places. . . . If the mind is full of well-organized masses of ideas in connection with a given subject, it cannot help fitting all the ideas that it accepts at all into the masses that dominate it at the time."—Adams.

The aim of illustration is to add clearness and interest, to stimulate or to inspire, correlate where possible, illustrating history by literature and geography by science, physics, modern language, etc. Let the illustration help out the weak points in the recitation, where the pupil does not understand.

Aids in illustration:

Use the object itself.

Model of object (in Latin, bridge across the Rhine; in Med. Hist., a castle or a manor; in Math., geometrical figures, etc.).

Picture of the object.

Diagram or drawing of the object.

Vivid word description of the object.

Newspaper clippings.

Quotations.

Maps.

Postcards and other pictures (Brown or Perry).

Comparisons.

Amusing stories closely connected with the lesson.

Diaries (especially good in history and English).

Letters (especially good in history and English).

Magazines (agricultural ones are good for Math.).

The following questions will be considered in observation:

How did the teacher use illustration to make the lesson clearer?

What models or other illustrative material did he use?

Was the connection always clear between lesson and illustration?

Were pupils interested in the story as such, or as an illustration of the lesson?

Were the teacher's illustrations prepared beforehand, or chance thoughts of the moment?

January. The use of the blackboard. The blackboard is a ready tool, and should be used in connection with nearly all lessons. For drills, the class should be massed so that all may easily see. A pointer should be used in explanation. Teacher or pupil in explaining should avoid standing in front of the work.

There should be a regular routine in passing to and from the blackboard; each pupil should be assigned a place. The work should be neat, well-spaced, legible, and large enough to be seen by all the class.

The following suggestions may serve as an aid in extending the use of the blackboard:

Words: Explanation of difficult words as to spelling, pronunciation and meaning. Unfamiliar proper names, whether foreign or otherwise.

Events: In history or kindred subjects, events of importance should be written on the board, with comment.

Illustrations: Maps and diagrams, rough sketches made by teacher or pupil catch the eye and aid in understanding.

Outlines: For review, for the day's lesson and for the advance, a blackboard outline is valuable (especially in history, it is worth while sometimes to work over the whole advance lesson with the class by means of a board outline).

English: Principal parts of English verbs may be visualized; sentences corrected at the board serve the whole class; phrase, clause, sentence written on the board aid in forming the "sentence sense;" conjugation in English and foreign language, and word lists including mistakes common to class or to school should also be placed on the board.

Colored chalk: In geometry and other math., in spelling, and in sentence work, the parts to be emphasized should be marked with colored chalk.

Object or aim: The object or aim of the recitation should be written on the board, and principal points noted as given by pupils, working the aim out logically; this may be used also for the advance, "studying the lesson with the class."

For observation:

How did the teacher use the blackboard?

How did the pupils use the blackboard?

Was its use planned, or simply random writing without aim?

References:

Colvin, "Introduction to High School Teaching," pp. 133-137; 167-168; 194; 406; 413; 434.

February. Reactions of pupils to instruction.

What kind of reactions should we seek? Mental, physical, aesthetic, moral and spiritual, temporary or permanent? What kind should we have in the classroom? What kind elsewhere? Should we have both individual and group response?

In class, what answer do I get to direct questions? What results do I get from essays and oral reports? What are the results of my tests, with or without warning? What degree of pupil-activity have I in my classes? Do I plan to secure response in class? Do I recognize ability shown by responsiveness? Do I praise enough or too much? (see Parker, pp. 470-471.) Do I use sarcasm and ridicule, thus "discouraging the timid, antagonizing the sensitive, and irritating the earnest pupil?" Do my pupils show lack of self-reliance, and hence a dependence upon text and teacher? (see McMurphy, "How to Study," pp. 253-280.)

References:

Earhart, "Types of Teaching," pp. 82-90; 94-106; 115-125; 130-149.

Parker, "Methods of Teaching in High Schools," pp. 470-471; 202.

Betts, "The Recitation," pp. 4-24; 33-44; 48-51; 97-103.

Stevens, "The Question as a Measure of Efficiency," pp. 12-15; 25-36; 45-46.

For observation:

Degree of pupil-activity and kind.

Number and quality of questions.

Apparent results of work upon pupils.

March. Types of the recitation suited to our school.

Memory work.

Unorganized discussion in pupils' own words (should be carefully summarized for the sake of unity).

Question and answer (apt to be formal).

Topical.

Problem solving (may be used with any subject).

Socialized recitation (may be modified and adapted to any of above).

References:

Earhart, "Types of Teaching," ch. 5-13.

Betts, "The Recitation," ch. 1, 2, 4.

Strayer, "Brief Course," pp. 41-112.

Burton, "Supervision of Instruction," ch. 11; pp. 232-253.

Bagley, "Classroom Management," pp. 188-214.

Ask yourself:

What are the pupils learning?

Are they coming into contact with thoughts that will develop a desire for greater accomplishments and higher ideals?

Has the teacher an aim in each recitation?

Has the child an aim?

Is the type of recitation best suited to realize the aims of teacher and pupils?

For observation:

What is the type of lesson?

Was there a definite plan?

What aims had teacher and pupils?

Was the aim partly or entirely realized? If not, should the type have been different?

April. Lesson plans.

The lesson plan tends to eliminate ineffective teaching, and to insure the accomplishment of the aim or aims of the recitation. It should make definite a suitable object or aim; serve as a guide during the recitation; lead the teacher to more systematic organization, and to a use of supplementary material; should cause the teacher to make greater effort to master his subject-matter; make the teacher independent of the text; and improve methods of presentation.

The plan should include:

1. Statement of aim for both teacher and pupil.

2. Subject-matter, chosen to accomplish a definite purpose, and organized in detailed outline.

3. A list of "teaching materials, aids or devices."

4. Method of procedure.

a. Pivotal questions.

b. Illustrations, including "teaching materials."

c. References.

d. Drill, review and summaries.

e. Suggestions as to how principles taught may be applied.

5. Assignment.

6. Teacher's evaluation of the recitation unit.

In some schools teachers are required to keep a plan book which the supervising officer examines at intervals. We do not always have time to make complete plans, and every supervisor realizes that; but, we should try to make at least one complete plan a week, not only for the good of our classes, but also for our own development. At other times a few notes jotted down in convenient form make a working plan.

References:

McMurphy, "Method of the Recitation," pp. 329-339.

Earhart, "Types of Teaching," pp. 220-259.

Strayer, "Brief Course," pp. 167-223.

Colvin, "Introduction to High School Teaching," pp. 334-359.

For observation:

Was there a plan?

Was the aim clear?

Did the teacher follow the plan, and partly or wholly accomplish the aim?

Was the plan changed by the class? If so, how?

Would a different plan have worked better? Why?

Was the lesson apparently one unit of several making up a large plan?

Can you suggest improvement?

May. The assignment.

The lesson assignment should prepare the pupil for work which must be done outside the class period, or without the assistance of the teacher. It should be a decided help to the student; but, should also tend to make him an independent worker. Four types of assignment are in general use: problem, topic, paragraph, and page.

The assignment should be definite. If outside reading is given, not only should the name and author of the book be given; but, also page and sectional references, unless the reference is an encyclopedia where the student should learn to find his own material in the best way. The assignment should consider not only the average pupil; but, also the dull and the bright, the more clever pupils being given longer assignments, or additional work. The assignment should help pupils over hard places, show them how to study the lesson, and show plainly the connection between material already learned and that to be learned.

The assignment may be made at the beginning or end of the period, depending upon the recitation; but, in any case, sufficient time should be allowed for it. Personally I prefer the close of the period.

Pupils should be held strictly responsible for the assignment. Do not assign too much and allow them to slip out of it.

References:

Burton, "Supervision of Instruction," pp. 176-186.

Earhart, "Types of Teaching," ch. 8.

Colvin, "Introduction to High School Teaching," pp. 141; 236-243; 284; 371.

Betts, "The Recitation," ch. 1, 4.

Strayer and Engelhardt, "Classroom Teacher," ch. 7.

Bagley, "Educative Process," pp. 316-319.

Bagley, "Classroom Management," pp. 192-200.

McMurphy, "How to Study," ch. 3.

THE WORK OF THE SCHOOL PRINCIPAL

At a conference of the superintendents, supervisors and principals of Newark, N. J., the subject embodied in the above title came under discussion. Dr. Ambrose L. Suhrie of the New York University delivered an address in which he said the following:

"While no one has made a satisfactory blue print of the school principal's job a considerable amount of helpful analysis of the duties which the principal may properly assume has been made in recent years by persons well prepared by training and experience to do so. All such studies point to the same conclusions, namely, (1) that school principals, generally speaking, do not discriminate with enough care between duties which are permanently important and those which are momentarily appealing and (2) that they have not learned to delegate to assistants the less important professional duties and to clerks the mere routine clerical tasks—in a word that they do not free their time from the details of administration and from routine office work for the development of educational policies, administrative programs and distinctive and coordinated institutional, class or individual achievements.

"If every principal were to take ten minutes at the close of each day (1) to review the distribution of his time during the day and to decide just which of his official acts could have been as well (or better) delegated to some one else and (2) to plan definitely to use his time more consistently for the big things for which his training and experience have theoretically given him better preparation than any one else in his organization, there would be steady and rapid progress in the improvement of his professional service.

"And whatever else he does not get done he must be a builder of institutional morale. He must be the inspiring leader of his group of teachers and children. He must give them incentive in group planning and some real pride and satisfaction in group achievement. He must blend the efforts of every new teacher with those of all others. He must make her feel that she is a stock holder in the corporation and that she is eligible for a bonus over and above her salary in the good will of the organization, in the well earned professional esteem of her associates and in the personal affections of her children. This can best be done by abundant judicious commendation of honest effort as well as by the recognition of achievement. Every principal should spend a considerable part of his time in deliberately hunting appropriate opportunities to commend. He should remember that real education is of the heart as well as of the head. He must concern himself with developing right fundamental attitudes in the group toward each other. He must see to it that every child enjoys a happy emotional attitude toward worthy people and toward worthwhile work honestly done."

Minneapolis Strikes the Economy Road

V. J. Gregory

The advantages accruing from the maintenance of a centralized staff of architects and engineers, in the work of planning and supervising public school construction, are made evident as a result of a five-year experiment conducted by the Minneapolis board of education.

The story in dollars and cents is briefly as follows: Between the years 1919 and 1924, the board expended a total of \$8,430,256 on general construction, mechanical equipment and educational equipment. Of this amount, \$7,543,696 was spent on general construction and mechanical equipment. The cost to the board, for services performed by its own staff of architects, engineers and superintendents, amounted to \$207,234 or 2.74 per cent of the total. Educational equipment required an expenditure of \$886,560 and of this amount \$23,470 or 2.64 per cent was spent for engineering and superintendency service.

Based on the total expenditure, the cost of service represented an outlay of only 2.7 per cent. When it is considered that six per cent of the total building cost is generally allowed for architectural services, it is evident that the board made a saving of at least \$250,000 during the past five years through the operation of its division of design and inspection.

The services performed by this division include a few not ordinarily considered a part of the architectural classification. Aside from the strictly architectural functions of the board's own staff of building experts, the services include those of the mechanical engineer, equipment engineer, general construction superintendent, supervisor of ground work and mechanical equipment inspectors on heating and ventilation, plumbing, electrical appliances and installation of educational equipment.

In comparing costs, it is well to consider the fact that ordinarily only the services of an architect and mechanical engineer are included in the architectural cost of a set of plans and specifications. The other services, requiring the direction of a general construction superintendent, equipment engineer and ground work superintendent, are generally extra items.

The development of a thoroughly equipped organization, intimately conversant with the needs of the board, has been a factor in the development of the city's system of public schools during the past five years. A summary of the objectives sought and achieved by the board, through the establishment of the division of design and inspection, as outlined by George F. Womrath, business superintendent, are as follows:

1. Centralization of all architectural and engineering work in a bureau of the board of education.
2. The building up of an internal, instead of an external, organization through the money invested.
3. Elimination of duplications in checking plans and specifications, superintendence, inspection and accounting.
4. The building up within the board of a highly trained, competent organization of architects, draftsmen, engineers and construction superintendents and inspectors, specially qualified in schoolhouse planning and intimately acquainted with the requirements of the board.
5. The establishment of intimate contact between the designers and builders of the Minneapolis schools and those who use them, resulting in a helpful study of the functioning

BID TABULATION - MECHANICAL EQUIPMENT - WASHBURN HIGH SCHOOL									
BIDDER									
HEATING									
BIDDER									
PLUMBING									
BIDDER									
ELECTRICAL									
BIDDER									
ELEVATORS									
BIDDER									
TOTAL									

A TYPICAL BID TABULATION USED BY THE MINNEAPOLIS DEPARTMENT.

of physical, mechanical and educational arrangement and equipment.

6. The securing of highly standardized plans and specifications through close cooperation of the superintendent and his staff of assistants, supervisors, principals and teachers.

7. Flexibility of procedure in the preparation of plans without involving complications regarding commissions paid. Work may be started, stopped, postponed, changed, discontinued or abandoned at the pleasure of the board.

8. Perpetuation of all desirable features of any building and elimination of all undesirable features.

9. Definite ownership of all plans and specifications.

10. Duplicating buildings without duplicating architectural cost.

11. Direct supervision and superintendence of building construction and of the installation of mechanical and educational equipment.

12. Combining the architectural and engineering work covering the general construction, mechanical equipment and educational equipment of a school building; for the production of a highly efficient and harmoniously functioning school unit.

13. Constructive cooperation with the repair and maintenance division from which reports are received showing which details of construc-

BID TABULATION & RECAPITULATION - WASHBURN HIGH SCHOOL									
QUANTAL CONTENTS									
2,953,419.00 CUBIC									
LOWEST OUTSIDE BIDS									
BIDDER									
GENERAL									
HEATING									
PLUMBING									
ELECTRICAL									
ELEVATORS									
TOTAL									

A BID TABULATION USED IN MINNEAPOLIS.

tion and which materials used have proved either satisfactory or unsatisfactory. Satisfactory items are duplicated in future plans and unsatisfactory items are eliminated.

14. Standardization of details and specifications leading to closer competition between contractors bidding and resulting in economy.

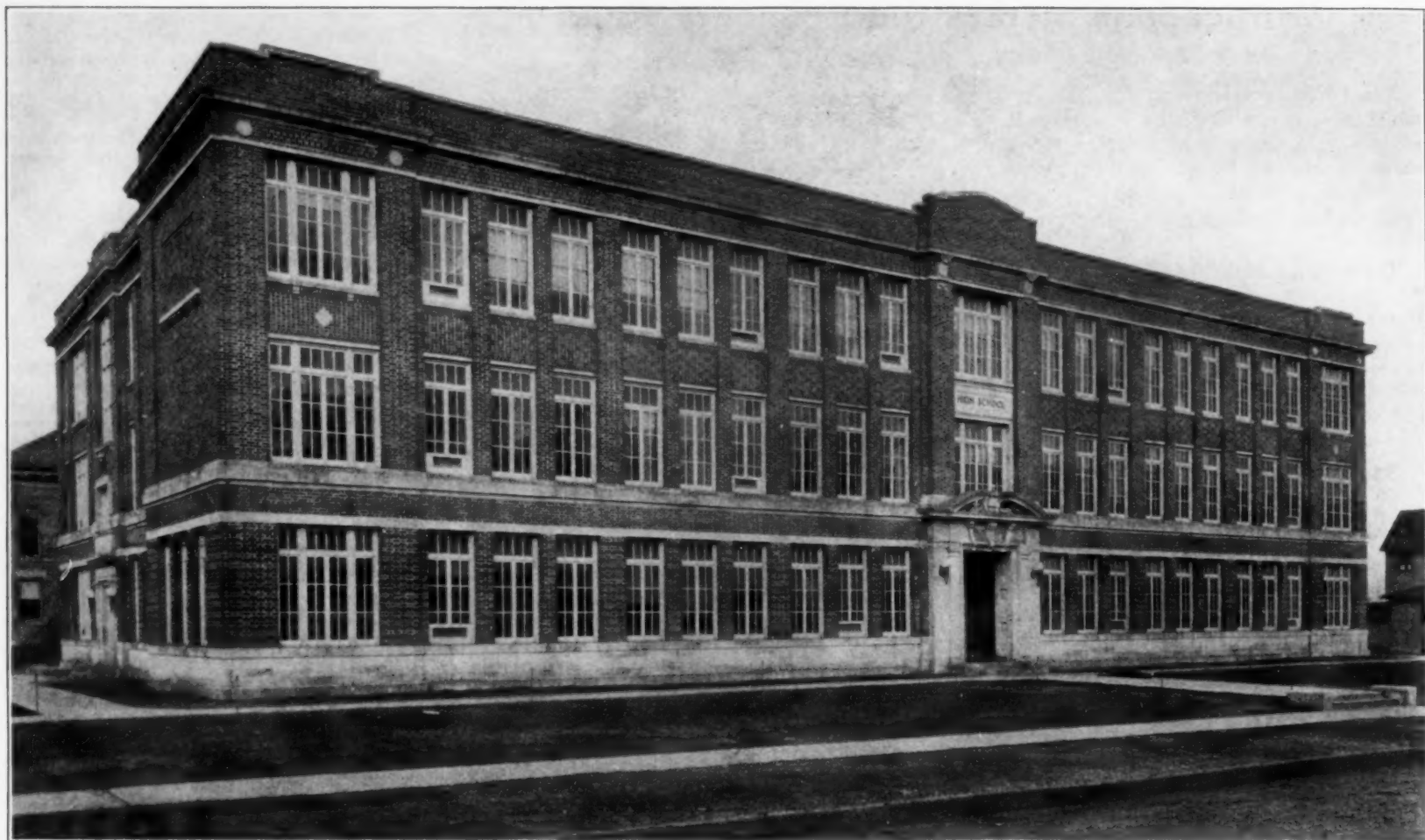
The maintenance division is charged with the duty of keeping all of the buildings in the entire system in repair, the personnel of which are, therefore, in an ideal position to note all defects in construction. Daily reports from

(Concluded on Page 132)



THE ARCHITECTURAL AND ENGINEERING STAFFS OF THE MINNEAPOLIS SCHOOLS

The work of drawing up plans and specifications for the Minneapolis public schools, the construction of which involves an approximate annual expenditure of \$1,500,000, rests upon the light-hearted group of young folks pictured above. They make up the personnel of the division of design and inspection. The executives of the staff, seated in front, are, from left to right: George F. Hale, equipment engineer; Francis Hafey, senior architectural draftsman; Edward H. Enger, architectural engineer; Arthur L. Sanford, mechanical engineer, and Maurice C. Larson, mechanical draftsman.



HIGH SCHOOL, INDEPENDENT SCHOOL DISTRICT, CHARITON, IOWA.

Wm. Gordon, Architect, Des Moines, Thomas, McLennan & Thomas, Successors.

Four Iowa Consolidated School Buildings

Work of the Late William Gordon, Architect, and his Successors, Thomas, McLennan & Thomas, Des Moines.

Among the states of the middle west, Iowa has been the outstanding leader in rural school consolidation. The state has been similarly a leader in adopting high standards for housing the rural centralized schools, and can point with pride to a growing number of school buildings which are models of efficiency and economy in arrangement, close adaptation to educational and community use, and modest but effective architectural treatment. To the rural school boards and superintendents must be given the credit for changing the ideals of the state in the matter of school housing, but to a limited number of serious, professionally minded, and capable architects must be attributed the actual work of translating ideals and needs into lasting and efficient structures.

Among the architects who have contributed materially to raising the standards of school architecture as expressed in consolidated school buildings in Iowa is the late William Gordon of Des Moines, who during a few brief years erected a number of buildings which are excellent in design, complete in their provision for educational and community use, and low in cost.

Mr. Gordon was a man of sterling character, attractive personality, and a business man of high ideals. He had a grasp of school architecture that was most unusual. Beginning his architectural career in St. Joseph, Mo., he formed a partnership with the late Mr. Ben Trunk, but later this partnership was dissolved and Mr. Gordon continued the practice of architecture under his own name. In his office at St. Joseph, he designed and planned many school buildings throughout the states of Missouri and Iowa; but in the spring of 1919 he moved his office to the city of Des Moines, Iowa.

Here he was making an enviable reputation for himself in school work, that was rapidly expanding his practice beyond the borders of the state when his career was very suddenly ended by his death in November, 1923, at the age of 44 years.

It was characteristic of Mr. Gordon that he had the happy faculty of drawing around himself a group of younger men, and instilling in them his own ideals of service and loyalty. It was only natural that on his sudden death, while on a trip of inspection, his organization should remain intact and carry on as before. Under the firm name of Thomas, McLennan, & Thomas, the firm now is made up of three of Mr. Gordon's associates who had worked under his direct supervision and instruction. On these men had rested a large part of the responsibility in Mr. Gordon's work. The new firm has continued to operate under the same policy as before, and has been successful during the past year in being retained on several large school projects in the state.

The illustrations accompanying this article are taken from Mr. Gordon's last work and from the work of his successors. Several of the plans were completed by his successors; the construction of each of the buildings was supervised by the members of the new firm.

Senior High School, Chariton, Iowa

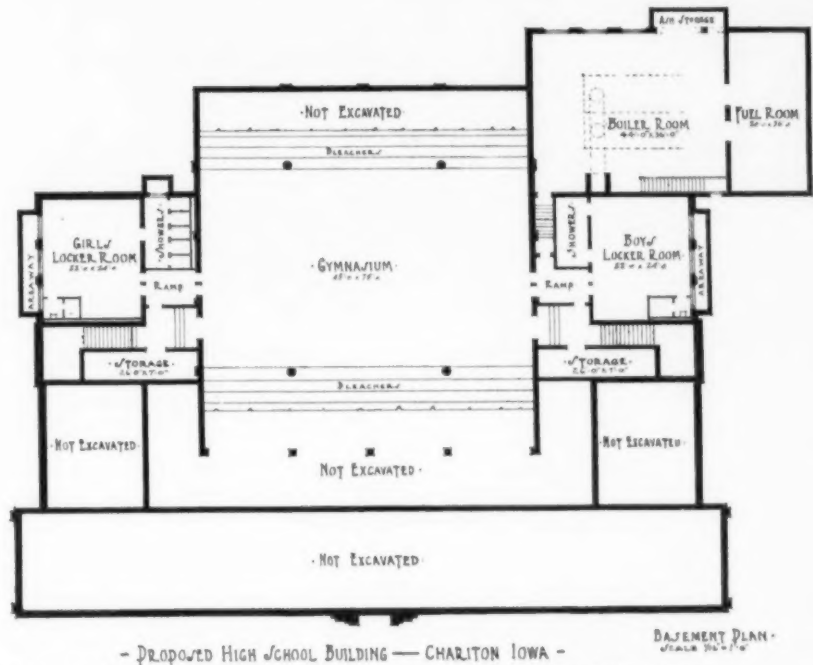
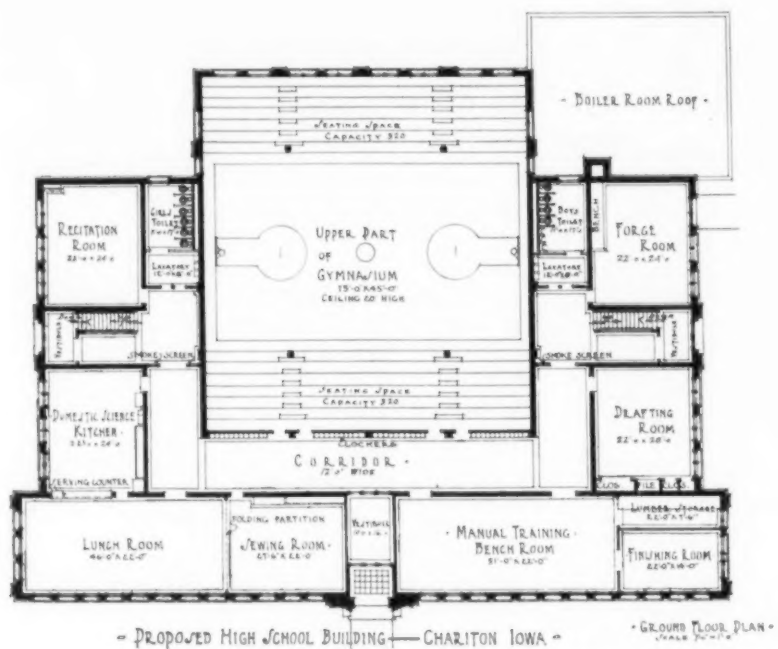
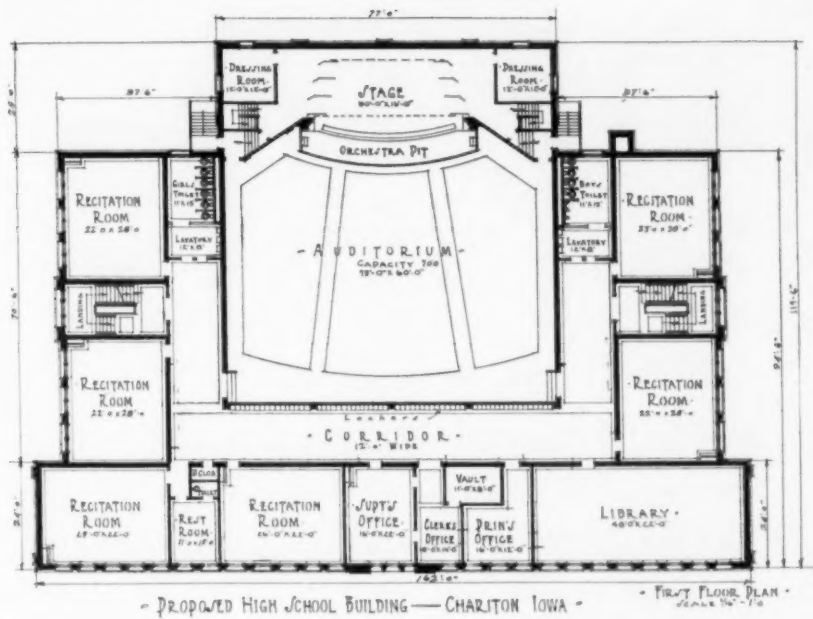
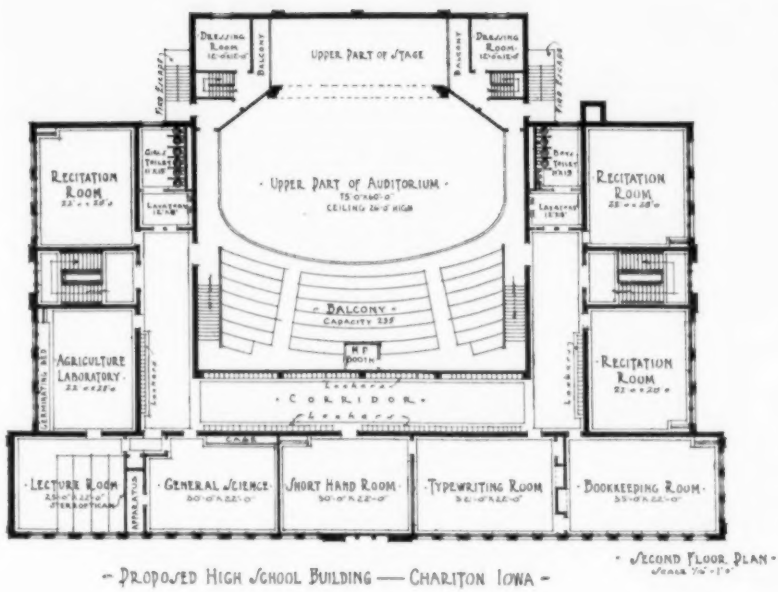
The Chariton Senior High School was erected in 1922-23 at a cost of \$220,000. The building includes the latest in modern plumbing, heating, a unit system of ventilation, automatic temperature control, built-in cabinets, lockers, and light fixtures, not to mention the grading, walks, and drives outside. The total cost per cubic foot was 23½ cents; or \$368 per pupil.

The basement includes the gymnasium with permanent bleachers in the rear and removable bleachers at front to be used either in the gymnasium or outdoors. Off the gymnasium on the left side is the girls' locker room with its individual showers and toilets, on the right side of the gymnasium are the boys locker rooms and beyond them the boiler and the fuel room.

On the ground floor are the home economics department, including domestic science kitchen, lunch room and sewing room; and the manual training department, including a bench room, finishing room, lumber, drafting and forge rooms. There are also one recitation room and girls' and boys' toilets on the opposite ends of the building.

On the first floor above are six recitation rooms, a large library, and the administration rooms, including a superintendent's office, a principal's office, a clerk's office, a reception room, and a vault. The toilets for this floor are located directly over those beneath. On this floor, extending into the story above, is the auditorium which with its balcony above has a seating capacity of 1,150. On each side of the large stage is a dressing room. The entrance to this auditorium is reached by doors opposite the end stairways.

On the second floor we find the entrance to the auditorium balcony with its motion picture booth. Besides toilets similarly located to those below, we find three recitation rooms and a science department, consisting of a general science laboratory and an agricultural laboratory, with a lecture room in between. In the agricultural laboratory is a large germinating bed. On this floor is also located the commercial department, consisting of a shorthand room, and typewriting and a bookkeeping room.



FLOOR PLANS OF THE HIGH SCHOOL, CHARITON, IA. William Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Ia.

The floors throughout the building, excepting in the gymnasium, lockers, showers, toilets, etc., are of magnesite composition, sanitary, easy to walk on, and quiet.

The main entrance to the building is at the front, but the stairways are located with their entrance at opposite ends, eliminating any necessity for fire escapes.

The unit system of ventilation gives a flexible control, allowing for ventilation in all or only a portion of the building. The heating system is so designed to heat the entire building, or just the gymnasium or auditorium.

Redfield, Iowa, Consolidated School

The Redfield Consolidated School was erected in 1920-21 for \$140,000, including plumbing heating, ventilation, automatic temperature control, built-in cabinets, lockers, light fixtures, grading, walks, and drives. The cost per cubic foot was 30.2 cents, and the cost per pupil, \$262. The building is constructed of reinforced concrete and steel, brick, and Bedford stone.

The basement includes the gymnasium extending out through the ground story. This gymnasium has a balcony at each end, which with space under the corridor above, gives a seating capacity of approximately six hundred persons. Off the gymnasium toward the front are the boys' and girls' lockers and showers. On the ground floor there are two entrances on the front, approximately at the quarter points. From the entrances concrete stairs extend up to the top floor. The toilets are located adjacent to each stairway on each floor.

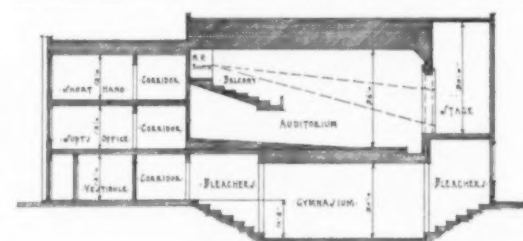
On the ground floor are located the manual training department, consisting of a bench room, finishing and lumber room, also three classrooms. On the first floor above are five classrooms, a superintendent's office with reception room and vault, and the home economics department, consisting of a domestic science kitchen, lunch room and sewing room. A folding partition divides the lunch and sewing room, allowing the same to be thrown open into one large room.

On the second floor are a rest room, three recitation rooms, a laboratory, and a large study hall. The stage of the study hall does double duty as a library.

This building has a unit system of ventilation, flexible control on the heating, allowing portions or the whole of the building to be heated.

Consolidated School, Orient, Iowa

The Orient Consolidated School was erected in 1921-22 at a cost of \$120,000, which is a cost

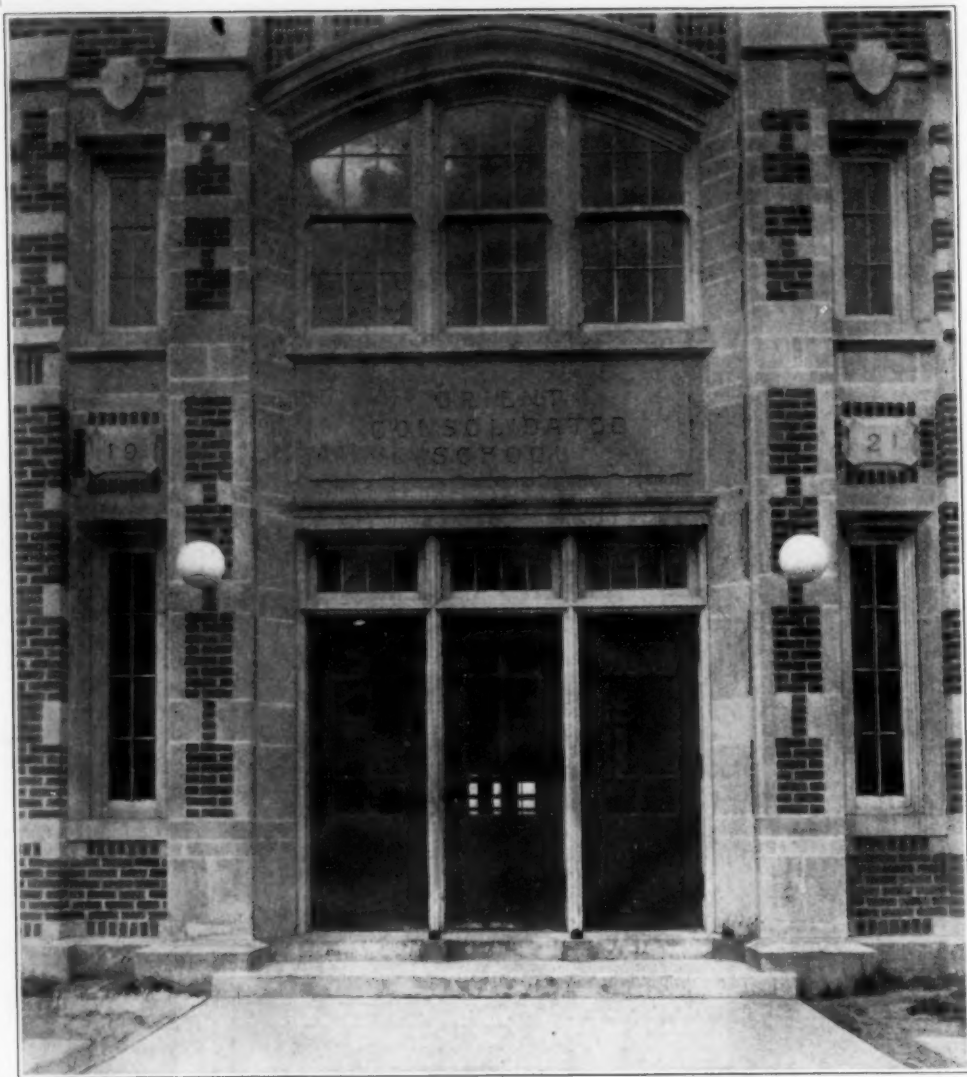


per cubic foot of 27 cents. The building is fire-proof, of reinforced concrete and steel construction, brick and Bedford stone.

In the basement is located the gymnasium which extends through the next story. The gymnasium has a floating wood floor and bleachers built along one side, which with rising doors on the first floor corridor, gives seating space for approximately five hundred spectators. Off the gymnasium are located the girls' and boys' locker rooms, with their respective lockers, showers, and toilets. The remainder of the basement is either unexcavated or taken up by boiler, fuel room, and storage rooms. There is a rear exit from the gymnasium to the playground, which also connects with an outside exit from the boiler room. On one side of the ground floor are located the home economics department, consisting of a large domestic science kitchen, and a combined sewing and lunch room; on the other side are the primary rooms. On each side of the main entrance are located on the left, the girls' toilets and on the right the boys' toilets.

On the first floor above are four classrooms, a rest room, and recitation room, and a study hall. The toilets on this floor are of the same size as those located directly below.

On the top floor are four recitation rooms, a type writing room, a superintendent's office, and a combined auditorium and study hall with a seating capacity of four hundred persons.



FRONT ENTRANCE, ORIENT CONSOLIDATED SCHOOL, ORIENT, IOWA.

The stage in this case does double duty as a library; under the stage are trucks on to which the auditorium seats may be folded and stored away. A folding partition between the study hall and recitation room considerably increases the seating capacity.

The stairway at the center is doubled, making for dispatch when the pupils are entering or leaving the building.

The finish floors throughout the building, except in the gymnasium, lockers and showers, boiler and fuel rooms, are magnesite composition. Extreme care has been taken to give a large amount of blackboard space in each classroom. Sufficient drinking fountains are located on each floor to be quickly accessible to all pupils. A sufficient number of cloak rooms, wardrobes, cabinets and teachers' closets are provided to take care of the needs of the pupils and teachers.

The Tipton Consolidated School

The city of Tipton has always had a reputation of having a good school. For many years a school building in the town was designated as "The First Grade School West of the Mississippi River."

In 1920 the people of nineteen rural school districts petitioned for the privilege of joining the Tipton district in forming the largest consolidated school in the state of Iowa. This school was formed with an immediate enrollment of more than three hundred pupils. On February 18, 1924, an election was held to vote \$265,000 in bonds for a new school building. The election carried by a majority of 2 to 1, and the board of education proceeded to employ as architects, Thomas, McLennan & Thomas. Before the plans were actually drawn for the building, members of the board visited sixteen cities where new school buildings were under

construction and studied the entire problem from the standpoint of educational facilities, methods of construction, etc.

The contract for erecting the building was awarded to Lanning Brothers of Oskaloosa, and ground was broken about June 1st. The building will be entirely completed in the spring and will be ready for occupancy in September, 1925. The construction amounts to \$252,000, or 21.7 cents per cubic foot, which is exceedingly low considering the fact that the building is entirely fireproof.

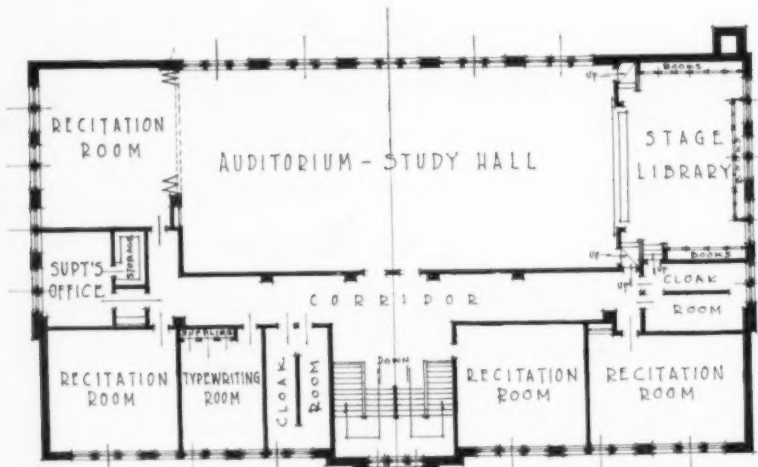
As a basis for the facilities to be provided in the building a survey was made of the district by Professor Greene of the Iowa State University. This survey showed that Tipton has a population of nearly 3,000, and is the center of a school district which combines city property with nearly fifty thousand acres of high-priced farm land valued at more than the amount paid for the "Louisiana Purchase." With this large taxing area and a well planned system of re-grading and organizing, the school educational facilities can be taken care of and transportation can be provided at a minimum cost. The millage tax is about half the average of the city schools of Iowa.

The building is a modified "T" shape, with the classrooms built around the gymnasium and auditorium. This makes for economy of construction and allows the rooms on each side to be extended toward the rear to take care of any future growth.

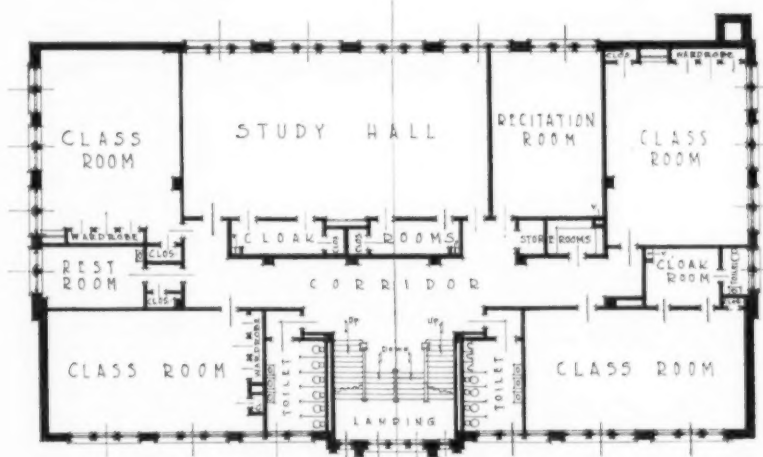
Perhaps the most outstanding features of the building are as follows:

1. The separation of the high and grade pupils on the opposite side of the building, with their separate toilets and stairs to playground, is so arranged that each is of easy access.
2. The gymnasium-auditorium with its balcony are easily accessible to the general public.
3. The flexibility of the heating system is such that the building as a whole may be heated, or it may be kept at a temperature just sufficient for purposes of protection, while at the same time a normal heat supply may be given the auditorium or gymnasium.
4. The unit system of ventilation is used allowing for thorough ventilation of the whole building, or for any single unit only that may be in use, and doing away entirely with the insanitary airducts.
5. The installation not only of flush steel lockers, but also steel wardrobes is provided giving a higher percentage of sanitation, lowering the cost and reducing the space.

Entering the building at the center main entrance, and passing through the vestibule, one finds himself in an ornamental corridor, the ceiling decorated with beams, brackets and plaster cornice, and the floor panelled in har-

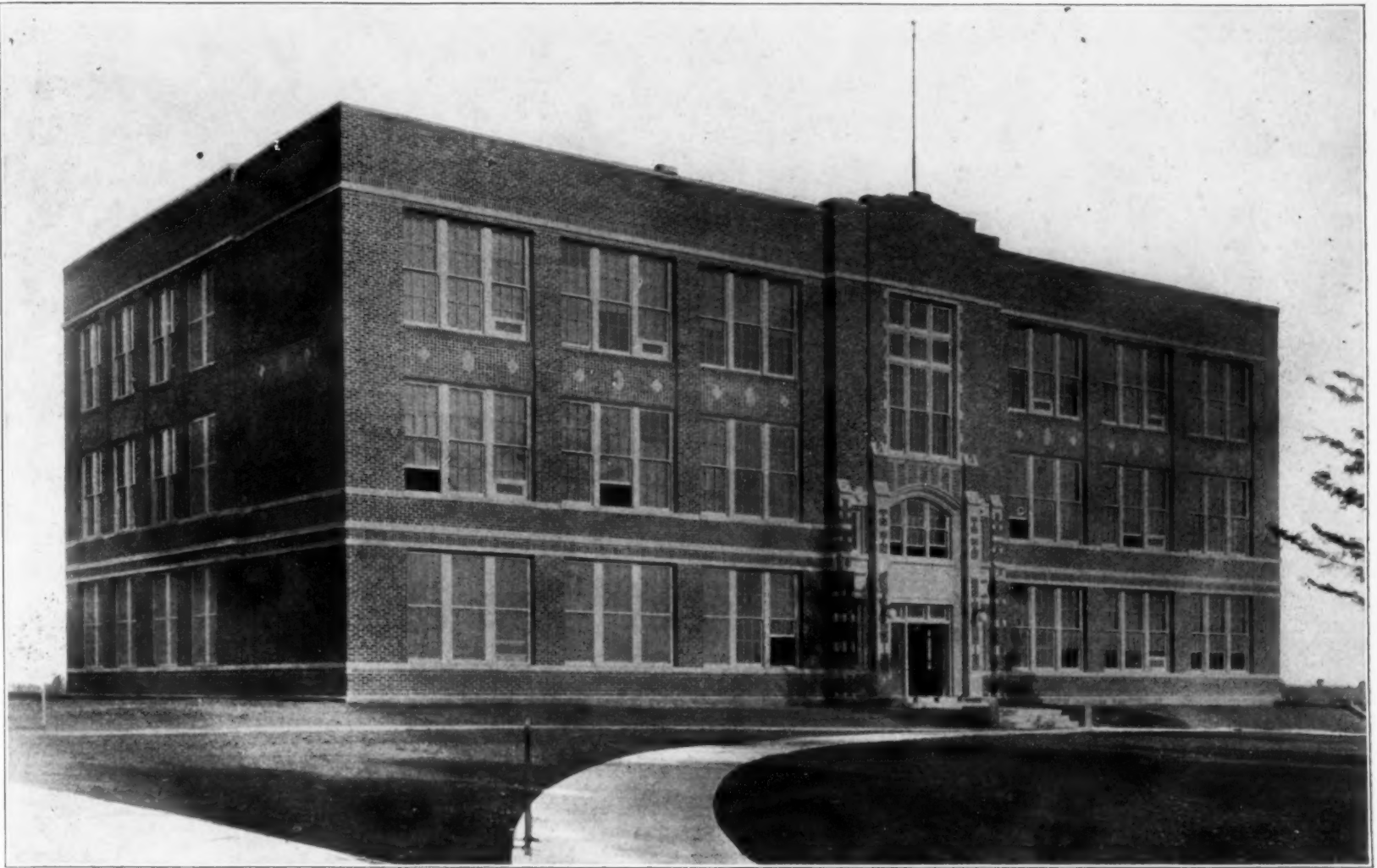


SECOND FLOOR PLAN



FIRST FLOOR PLAN

FLOOR PLANS OF THE CONSOLIDATED SCHOOL, ORIENT, IOWA. Wm. Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Ia.



CONSOLIDATED SCHOOL, ORIENT, IOWA.

Wm. Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Iowa.

mony. At each end of this ornamental corridor is a smoke screen, beyond which on the right hand side are the grade classrooms, and at the left the high school rooms. Going to the left we find near the main entrance, the offices of the superintendent with a clerk's office, a reception room, vaults, and closets; just beyond the smoke screen is the home economics department with the domestic science kitchen; model dining room, serving room, sewing room, and lunch room. On either side of the high school stairs are the boys' and girls' toilets, easy of access from the playground, and yet completely segregated from each other. Beyond these are three recitation rooms. If we turn to the right in the corridor, we find the manual training and finishing room of access to either the high or grade pupils. Passing through the smoke screen we find ourselves in the grade school with its classrooms, stairs, and toilets, similar in plan to the opposite side of the building. Passing down the corridor to the rear in either the high or grade side, we come to a stairs that takes us either to the outside of the building at the rear or into the girls locker room on the left, or the

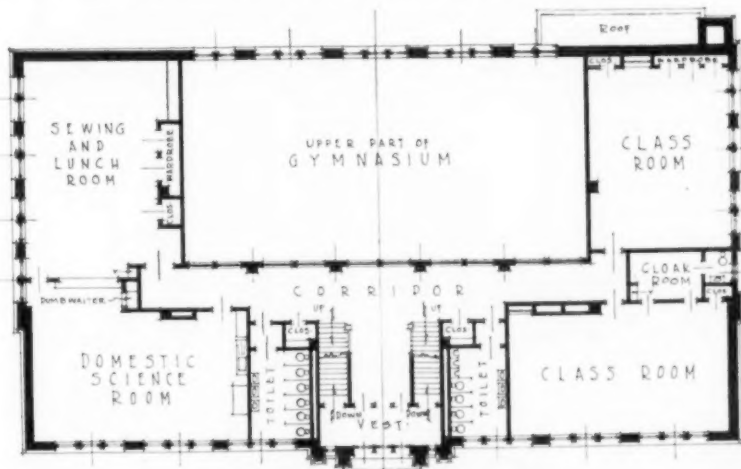
boys locker room on the right. Or we may enter the boiler room, equipment room, or gymnasium with its ample store room.

The bleachers at the front of the gymnasium are permanent, made of concrete, and within easy reach from the ornamental corridor at the front. The bleachers at the rear are removable, made of wood, and may be used outside on the grounds as well as inside. These two sets of bleachers give an abundance of seating space.

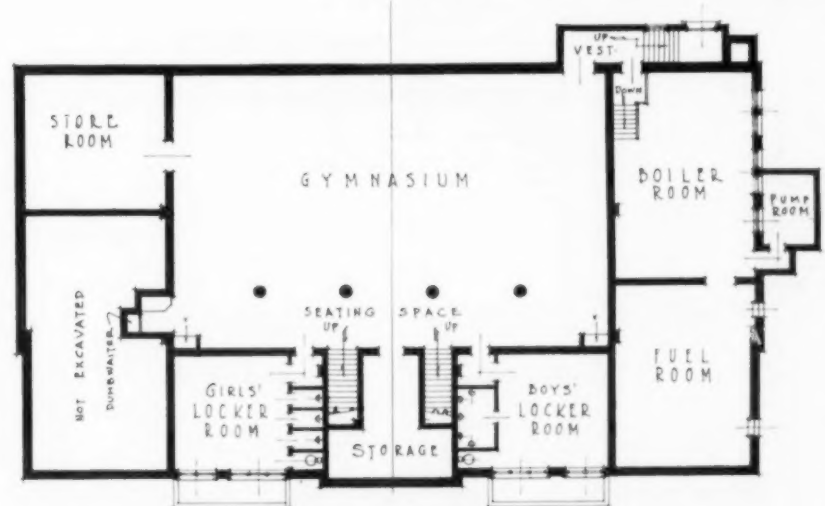
Passing up to the first floor above, we find the main center stairs and the high and grade stairs with their adjacent toilets as before; on the left after passing through the smoke screen, we find the recitation rooms, a junior study hall, while at the rear is the science department with a lecture room between the general science laboratory and the agricultural laboratory, accessible from both. On the south side of the agricultural laboratory, is a large steel window, allowing ample sunlight to fall on the germinating bed below.

If we turn to the right at the center corridor, we find the infirmary room close beside the center main stairs, and passing through the smoke screen, we again come upon the grade classrooms. If from the center corridor we pass through the doors opening out from the same, we find ourselves in a large auditorium. The auditorium not only has the entrance and exits close to the main center stairs, but has additional exits on each side opposite the grade and the high stairs, or further up toward the front they open into the corridor which in turn open into the side stairs. This auditorium with its balcony above, has a seating capacity of approximately 1,200, with a large stage in front with its ornamental proscenium opening, and its curtains and drapes the equal of a fine theater. At each end of the stage is a stairs leading up to the girls' dressing room on the left, and the boys' dressing room on the right.

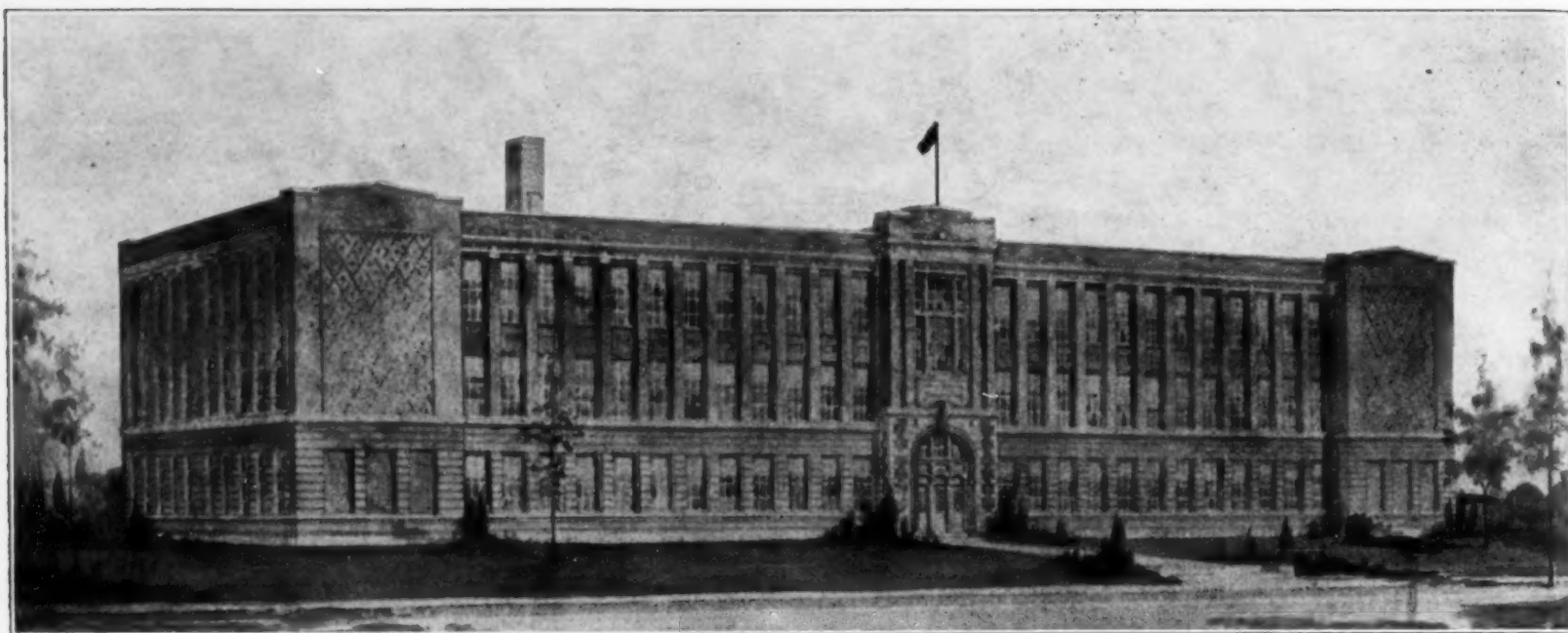
On the second floor we find the plan still remains the same—a center corridor with smoke



GROUND FLOOR PLAN

CONSOLIDATED SCHOOL BUILDING
ORIENT - IOWABASEMENT PLAN
SCALE 1" = 10' - 0"

FLOOR PLANS OF THE CONSOLIDATED SCHOOL BUILDING, ORIENT, IOWA. Wm. Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Iowa.



CONSOLIDATED SCHOOL BUILDING, TIPTON, IOWA.

Thomas, McLennan & Thomas, Architects, Des Moines, Iowa.

screens on each end and rest room off the same. On the left side of the building, are the various recitation rooms, senior study hall, stairs, toilets, and commercial department in the rear; while on the right side are the grade classrooms with stairs and toilets.

Entrance may be gained to the balcony of the auditorium from either the center corridor or openings opposite the grade and high school stairs. This balcony contains a motion picture booth. The sight lines are so designed that there is a clear view of the stage from each seat.

This building gives Tipton and the people of

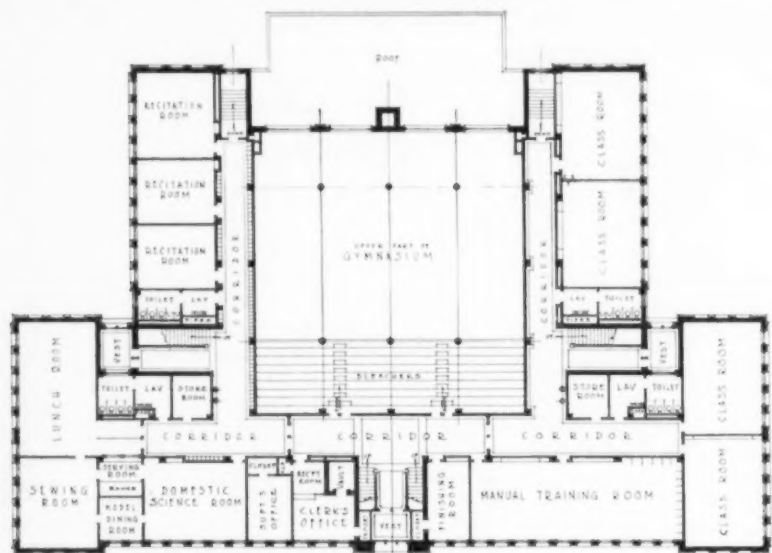
this community not only a place for the development of a real "community center," but the very best school plant in the state outside of the large cities.

SCHOOL TAX FIGHT IN NORTH DAKOTA

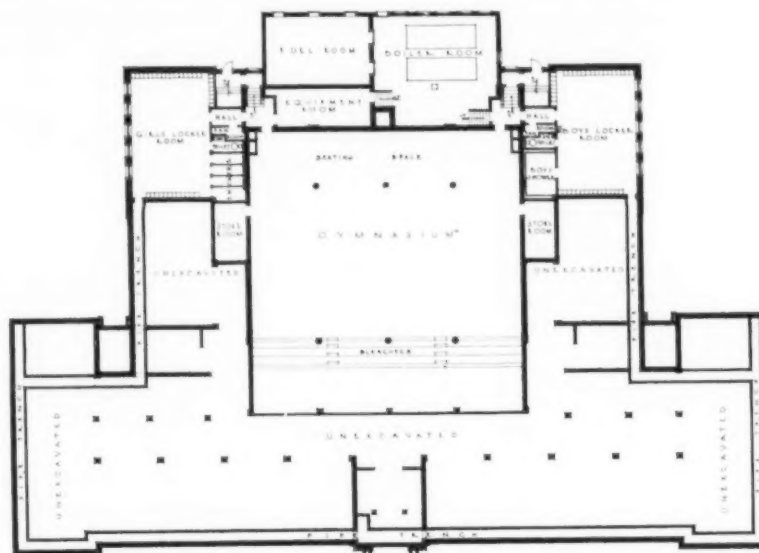
At the November election, in North Dakota, a bill was submitted to the voters as an initiated measure upon petition of about 19,000 citizens of the state to reduce tax levies 25 per cent below the tax levies of 1923. The bill safeguarded levies for sinking funds, interest on bonds, etc., but would have worked untold in-

jury to the educational interests of the state by depriving all kinds of schools from the one room rural school to the university of proper funds for running expenses.

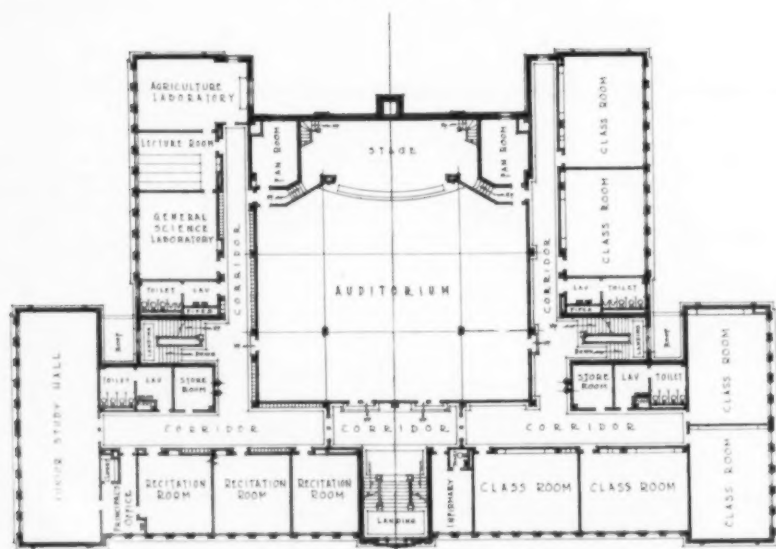
"The very title of the measure made it a very popular one. A measure that promised tax reduction was sure to be greeted with general favor. Unless a voter would examine the measure further and consider its effects upon education, roads, etc., his own selfishness would lead the tax payer to vote for the measure," said Superintendent Nelson Sauvain of Devils



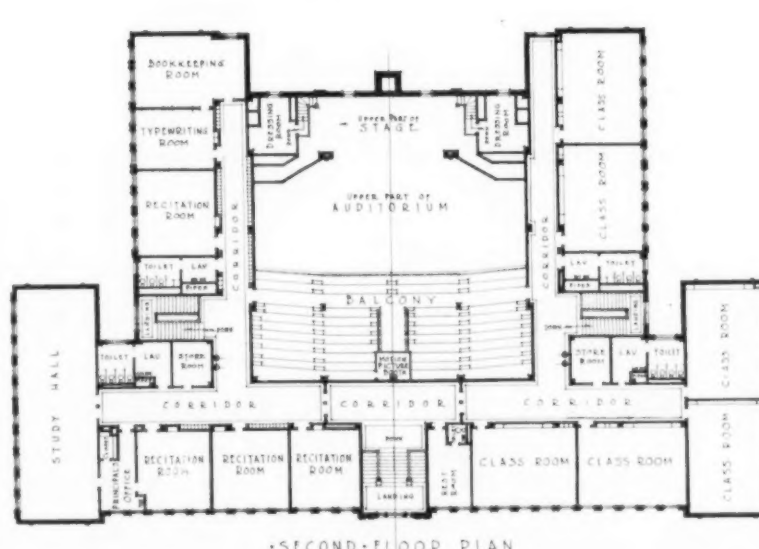
GROUND FLOOR PLAN



BASEMENT PLAN

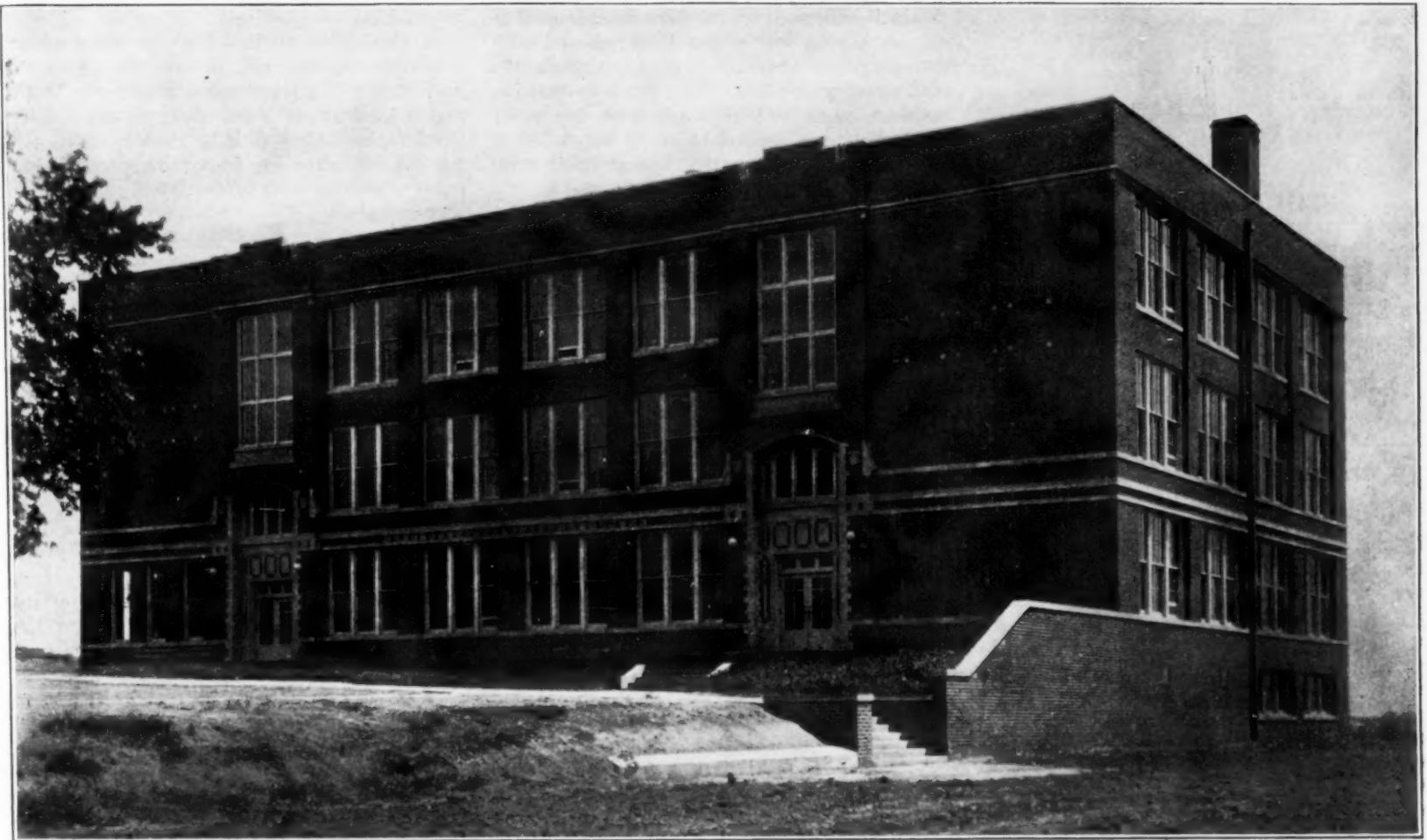


FIRST FLOOR PLAN



SECOND FLOOR PLAN

FLOOR PLANS OF CONSOLIDATED SCHOOL BUILDING, TIPTON, IOWA. Thomas, McLennan & Thomas, Architects, Des Moines, Iowa.



CONSOLIDATED SCHOOL, REDFIELD, IOWA.

Wm. Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Iowa.

Lake, in discussing the measure and its fate on election day.

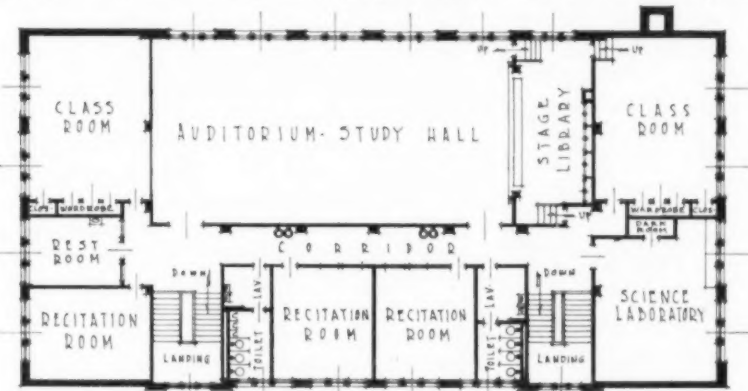
"A few of the largest tax payers of the state organized a campaign for the measure. They furnished money freely for financing the campaign. Through public addresses, newspaper articles and special circulars, the voters were informed that the measure was a necessity to prevent the confiscation of all farms by high taxes, and that the measure would not injure education. Gross misstatements purporting to

be statistics were freely used to support those statements.

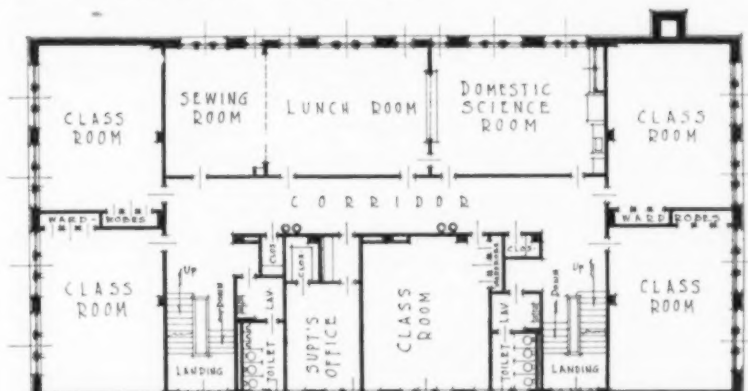
"The North Dakota Education Association met less than two weeks before the elections. At the time of this meeting, a thorough campaign was planned to fight the measure. The profession was thoroughly organized for vigorous and intensive work the ten days preceding November 4. The State Federation of Women's Clubs, The State Association of School Directors, and the State Parent-Teach-

ers' Association united with the North Dakota Education Association in the campaign.

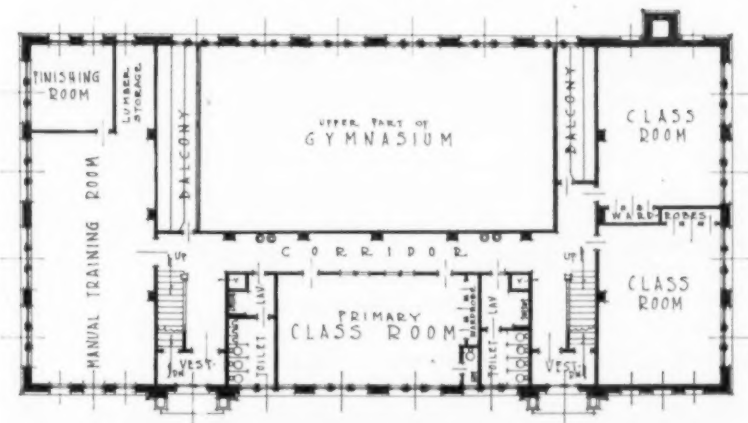
"Mass meetings were held all over the state. Slides and four minute speakers were used in the movies. Advertisements were used in the newspapers. Circulars were sent to the voters. The subject was discussed freely in the schools, and the school children helped to bring the danger before the voters of the state. The result was a defeat of the measure by a majority of about 6,000."



SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN

SCALE 1" = 10' 0"



BASEMENT PLAN

FLOOR PLANS, CONSOLIDATED SCHOOL BUILDING, REDFIELD, IOWA. Wm. Gordon, Architect; Thomas, McLennan & Thomas, Successors, Des Moines, Iowa.



THE AMERICAN School Board Journal

WM. GEO. BRUCE }
WM. C. BRUCE } Editors

EDITORIAL

THE EDUCATION OF BOARDS OF EDUCATION MEMBERS

The first impulse of those who find themselves chosen to board of education service is to seek guidance in the task they are to perform. All have the laudable ambition to become reasonably valuable to the school system. Few are so confident of their knowledge of school administrative affairs as not to look for information that may equip them more completely for their task. No doubt, the first essential is to understand the guiding principles in school administration as well as to know the procedure that goes with the work of deliberative bodies. The relations which the school board member bears, in both his individual and collective capacity, to the school executives, the professional forces, and the general public must be mastered. No one can serve efficiently who does not observe the fundamentals which apply here.

Then come the regular administrative labors. These usually involve a variety of considerations which may not only tax the general knowledge but also the judgment of the member to a high degree. Here may come up new problems and new situations in which no one on the board has had experience. The locality offers no precedence.

It is then that the progressive board of education member rises above local environment and looks to a wider field for information. What is the experience of other cities, other school systems, other board members? How has the problem in hand been solved elsewhere? These are the questions for which an answer is sought.

But, he will also turn from the concrete problem before him to seek a wider horizon of information on all things coming within the province of school administration. What are other boards of education in other cities really doing? Are they engaging in departures and innovations of which we are in ignorance? Cannot the experiments and experiences of other school boards be turned to our advantage? Is it not well to be informed of what is really going on in the whole field of school administration in order to determine upon our own progress?

Questions of this character are constantly in the minds of those who are desirous of rendering efficient service to their school system. The fact is that the required and desired information is constantly at the service of those who ask for it. There are periodicals that are specially devoted to the labors coming within the province of the board of education member. They record the worth while doings of every other board in the land. Besides, books dealing with special phases of school government may also be obtained.

The question here is not so much as to how literature on the subject of school administration may be obtained, as it is that members do

obtain it and profit by it. The average man or woman sitting on a board of education is extremely busy and hates to give up time for the reading of periodicals. But, many a member has been weak and inarticulate on important problems simply because he or she has failed to secure the information that was at ready command.

It only follows that those who accept school board honors should also avail themselves of the aids and agencies at their command. The consciousness that one is rendering efficient service is after all the highest compensation that can come to the public spirited citizen.

It is the busy man who knows the economy of time and effort achieved in the regular reading of a periodical that is specially designed to serve him. The business man reads his trade paper, the physician his medical journal, the lawyer his law digests, and the engineer his scientific monthly. Why not the board of education member his school administrative magazine?

It requires no stretch of imagination to appreciate that the board of education member who consults periodical literature dealing with the problems and principles of school administration that concern his work will lighten his task considerably and at the same time meet the same with greater credit to himself and his community.

WHAT ABOUT THE TREND OF SCHOOLHOUSE CONSTRUCTION?

No class of projectors of new housing have in recent years been confronted with a more perplexing problem than that which has concerned itself with the housing of school children. The desire to meet the demands of a growing school population on the one hand and the high cost of building operations on the other, led to some embarrassing situations.

A public body is exposed to the whims of the popular will and to the exigencies of local tax ability. A private corporation may gage its operations by the business prospects that confront it. A large investment is predicated upon the returns that are likely to follow. All depends upon the earnings that can be achieved.

A board of education is not so fortunately placed. The returns on its investments cannot be measured in dollars and cents. At least the public is not inclined to resort to such measurements. It figures its share in the investment in terms of tax tributes, and is not always fully appreciative of the returns.

But, the school authorities have in most instances faced the necessities of the situation by relieving the pressure for more school housing. Such housing had to be provided whether the cost of construction was high or low, or whether the cost tendency was upward or downward.

A review of the situation covering a period of twenty years notes that the general building operations in point of volume and value reached the peak between the years of 1919 and 1920. Then followed a decided drop. Since then the tendency has been downward both as to volume and cost.

The trend within that period manifested in general building operations has evidently not applied with exactitude to schoolhouse construction. The accumulated housing shortage, which applied more acutely to homes and existed in varying degrees to all forms of industrial and commercial structures, was, no doubt, met more largely in the peak years referred to than was the schoolhouse shortage in that period.

But, whatever may be said on this point the high level, as applied to schoolhouse construction, came later than 1919-20 and was not reached until last and this year.

Speaking prospectively, the conditions warrant the statement that high level in schoolhouse construction will extend throughout the year 1925. The phenomenal attendance in the higher institutions of learning, the acute shortage in school seatings in the larger cities, and the general wave for junior high schools—all point to another year of maximum construction operations.

Coupling here the fact that school bond issues have rolled up in recent months to an unprecedented figure leaves on the whole the inference that schoolhouse construction will not wane during the coming year. This prediction is further strengthened in the fact that the school building programs now in hands of many of the larger communities have never before reached such huge sums, and while in many instances they cover a period of three years or more, a large proportionate part will be realized within the next twelve months.

THE EXPLOITATION OF SCHEMES IN SCHOOLHOUSES

There has for many years been a constant pressure upon school authorities to open the schools for the exploitation of pet schemes of innumerable kinds. The popular form of these schemes runs into essay contests, voting contests or the collection of moneys for some social, civic or patriotic purpose.

In the course of time, the boards of education throughout the country found themselves compelled to shut down on projects of all kinds, no matter how laudable or lofty their purpose, because they interfered with the ordinary routine and business of the school.

It is all very fine to let children write pretty essays on social and civic subjects in the schools, and tell father and mother at night what they think about women's suffrage, prohibition and international relations, but it is much finer to rear the children to proficiency in their assigned lessons. There are many things that men ought to learn, and perhaps will learn some time in life, but the elementary or high schools are not the places to begin to learn them.

The propagandist must be told to hold to the common agencies that reach an adult constituency and leave the schools to concern themselves wholly with their own task.

During the war the bars were greatly let down by the school authorities, especially for the collection of funds. But, after the war the old rules, prohibiting the exploitation of schemes and movements among school children were upheld again. It is only semi-occasionally now that a board of education finds itself tempted to yield to the importunities of outside organizations.

The subject permits of no division of opinion as to the wisdom of holding to fixed prohibitory rules on schoolhouse exploitation. The schools are maintained by a tax-paying constituency for a well defined purpose. That purpose does not permit the expenditure of either time or money on the part of pupils or teachers for things not included in a comprehensive school program.

WHY CITIZENS SHRINK FROM SCHOOL BOARD SERVICE

There are persons in every community fitted by virtue of their education, character and ability to serve in the capacity of board of education members. Where public sentiment favors an outstanding figure with reasonable unanimity, and acceptance is assured, no difficulties are encountered. This is more particularly true in communities where school board deliberations have run along in harmony and where the constituency has been reasonably satisfied.

Where turmoil, however, has existed and where the choice of school board membership is

attended with strife and contention, the most desirable citizen will naturally shrink from participation. At least, he does not care to expose himself to public criticism and the unpleasantness that attend hotly contested elections and subsequent disturbing administrative deliberation.

Thus, in communities where school board elections are attended with acrimony, the highest type of citizenship is not always inclined to compete for board of education membership. Such citizenship may be willing and capable to serve, but will not expose itself to political rivalry in securing recognition.

In the larger cities election rivalry is obviated by the introduction of the appointive system. This is not done, however, so much in order to get away from the competitive aspects of the elective system as it is to resort under conditions to a more expedient method of selection. In the larger city, men know less about each other and are therefore less capable to make a proper choice for school board service. While on the other hand the people in the smaller communities are in closer touch with each other and hence better enabled to come to an expedient choice.

It remains, nevertheless, that on the whole the elective system is more democratic and more in keeping with the subject upon which the Republic is founded, and hence more acceptable than the appointive system.

While there are situations where the more desirable citizen may hesitate to enter the competitive fray of a school board election but would accept appointment if the same were cordially and peacefully tendered, the appointive system is not entirely free from the unpleasantness complained of.

At Chicago, for instance, just now the mayor finds it difficult to induce the most desirable citizens to accept appointment to the board of education. The turmoil which has attended the deliberations of that body, the attacks made upon the same by the aldermen of the city and by cheap politicians, all of which find liberal expression in the public press, has prompted the highest type of citizenship to hesitate in accepting appointment.

It simply follows that noisy school board deliberation, fanned by a sensation-loving press is not designed to attract the conservative, peaceful, and thoughtful citizen to aspire to school board honors. At the same time it also remains that no loyal citizen, when deemed fitted and called upon to serve, should hesitate to accept appointment.

It may require little courage to become a school board member when the elements are calm and serene. But, true loyalty to community interest calls for steadfast and courageous service even when the clouds portend a stormy season. The finest achievements are usually those which have been hardest won.

THE TINKERER IN SCHOOL ADMINISTRATION

There never has been a man or a measure that has not at some time been under the fire of criticism. There never has been a suggestion, an idea, or a project that has not found opposition through some one who believed he could offer a better suggestion, a better idea, or a better project.

Up to a certain point such critics have their uses. Going beyond that point they become a nuisance. Time and thought may have evolved methods and standards applicable to certain conditions in life which are quite acceptable and as nearly perfect as the human mind can make them, and which are no longer subject to radical changes or to actual abolition.

The modern board of education, for instance, is a democratic institution which conforms with the spirit upon which the American government is founded. It is representative in character, stimulates interest in citizenship, and recognizes the essentials of stability and efficiency in government. It performs a great service. It is not subject to radical change, nor would any sane student of school administration recommend its abolition.

And yet the tinkerer and busybody, the individual that could improve the running of the universe, if he were given the chance, finds a panacea for all school administrative shortcomings by abolishing the school board.

Some time ago the editor of a leading Chicago newspaper advanced the startling suggestion that the administration of the schools be placed in the hands of a committee of aldermen. Recently the mayor of Syracuse, N. Y., came forward with the unique recommendation that the school board be abolished entirely because it had not been in harmony with his own notions. He proposed a paid commission instead.

These suggestions and recommendations are not new, nor has any one familiar with the subject of school administration, as exemplified throughout the United States, taken them seriously. Whenever a mayor or an alderman has gotten into a fracas with a school board he has sought to annihilate that body. But, to abolish the school board implies to find a substitute that may be more serviceable. Such a substitute has not yet been found.

The general public is not readily stampeded into rash action by the effusions of an all-wise editor or the mouthings of a disgruntled city official. An established order of things may be subject to improvement, but to tear down that which has been built up and is rendering satisfactory service can only lead to chaos.

SCHOOL BOARD ATTITUDE ON TEACHERS' CONVENTIONS

The average business or professional man, who holds a membership on a board of education, is no longer doubtful as to the value of conventions conducted in the interest of a given calling or profession. The various industrial, commercial, and financial interests of the country are banded together for mutual advantage just as are the lawyers, doctors, and engineers. Nor are these organizations formed purely for economic or material gain. The fostering of ideals and standards are frequently the basic purpose for coming together. The exchange of ideas has its specific value, and no one in these days would question the efficacy of an organization trend designed to promote human efficiency.

Thus, the periodical gatherings staged by the professional schoolroom workers of the land have come into recognition. They contribute a part of that efficiency which finds expression in the classroom and in the general administration of America's school system.

Boards of education encourage educational conventions by granting leave of absence, closing schools, and by granting full pay in order to enable teachers to attend them. It is also well known that the average school board insists that the superintendent attend the big national winter meeting and agrees to pay his travelling expenses. An investment thus made brings a ten-fold return.

There are school boards, however, that do not share in the recognition to which teachers' gatherings ordinarily are entitled. The attendance, for instance, at the fall meeting of the Indiana State Teachers' Association was impaired owing to the opposition manifested by rural school trustees. An Indiana editor says:

"In some counties the township trustees ordered rural teachers to stay at home and keep

their schools open, telling them that attending the state association would be regarded as an act of insubordination. In other communities where the trustees were less drastic, the teachers were told that they might attend the association session if they wished, but that their pay would be deducted for the time missed and that they would be expected to teach two days extra next spring to make up for the time lost."

"Recently there has been growing opposition to the state association on the part of some township trustees. Various trustees asserted that when the teachers met and adopted resolutions there was too much talk about independence and reform, too much sentiment for the county unit plan and too much of a demand for legislation that would be in the interests of the teaching profession. It had been the custom, for many years, to pay teachers their regular salaries for the two days of school missed while attending the state meetings. This year several trustees have brought their opposition to teacher freedom into the open."

That educational workers should discuss the questions of compensation, pensions, tenure, and the like is perfectly natural. They touch upon the business side of a professional career. When it comes to giving expression to these before legislative bodies the school trustee is in an equally tenable position to oppose them. If the teacher urges the county unit for school government, sound arguments must be advanced. Likewise must the school trustee who defends the district system present his arguments.

When it comes to the matter of school government the best thought must prevail. Nor is it likely that, on any issue between teachers and boards of education, a legislative body will be stampeded into error by one or the other faction. Unwise legislation has been engaged in, but the shortcomings in the school laws of the several states today represents the sins of omission rather than of commission.

At any rate, educational gatherings as exemplified by the American teaching profession, deserve the support rather than the antagonism of the school authorities. They make for that efficiency for which every school system must strive.

PROTESTING SCHOOLHOUSE TIEUPS

The Pittsburgh, Pa., board of education has experienced some embarrassing delays in its schoolhouse construction operations. After due deliberation, the board decided to proceed upon a line of action designed to put a stop to interruptions harmful to the cause of education.

The following letter approved by the board of education and sent by President Marcus Aaron to President Samuel Gompers of the American Federation of Labor explains itself:

"Plasterers' strike has delayed completion of our schoolhouses for months. This strike is hitting our children and our taxpayers. No question of wages, hours, or conditions of employment. Purely a contest for control of union terrazzo workers. Our records for years show repeated delay in completion of schools because of unwarranted jurisdictional disputes between union trades.

"Jurisdictional disputes involving no question of wages, working conditions or union labor are unwarranted and intolerable, and an outrage on the public. When in addition children are deprived of necessary schooling which they can never recover, such strikes are criminal.

"We urge immediate resumption of work on our schools and a permanent method of preventing jurisdictional strikes on schoolhouses. Before proceeding with an additional school building program involving six million dollars, we want this question definitely settled."

CHATS DURING RECESS

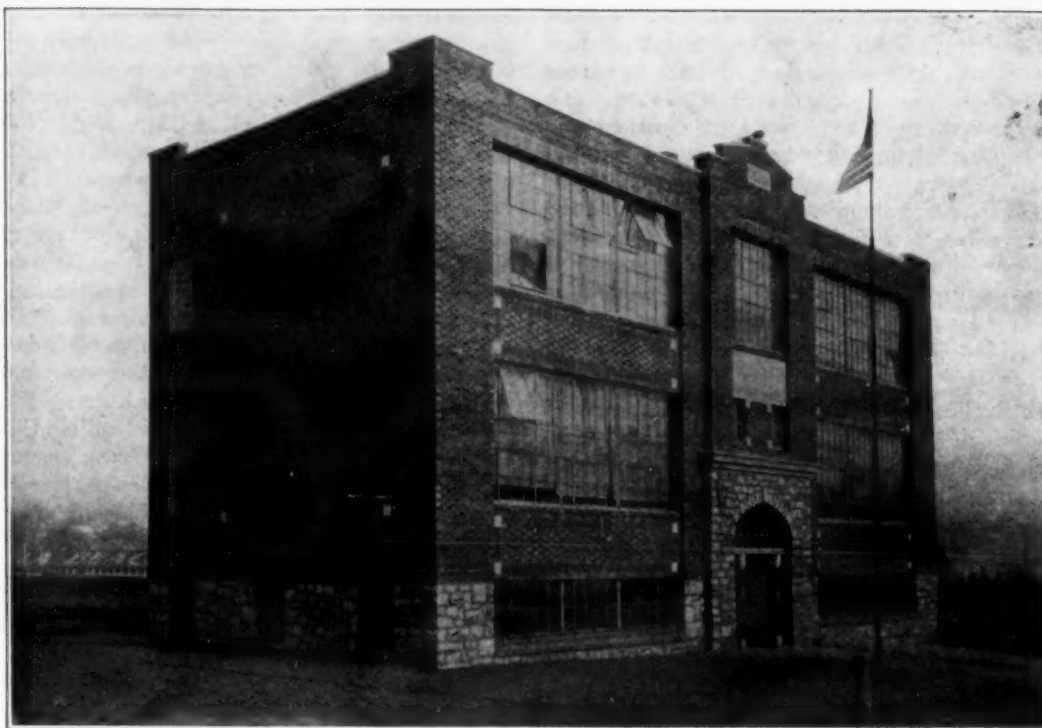
—Calvin Coolidge was a candidate for the Northampton, Mass., school board in 1900, and was defeated. That ought to give consolation to those who get licked at school elections.

A SMALL FIREPROOF SCHOOL BUILDING

A. W. Rudolph

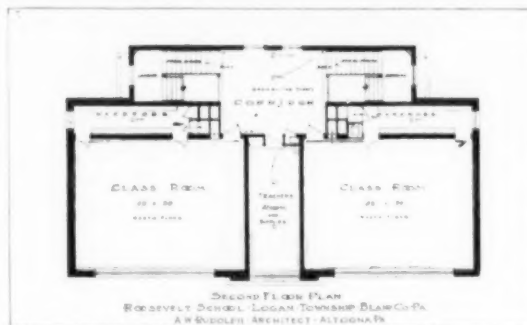
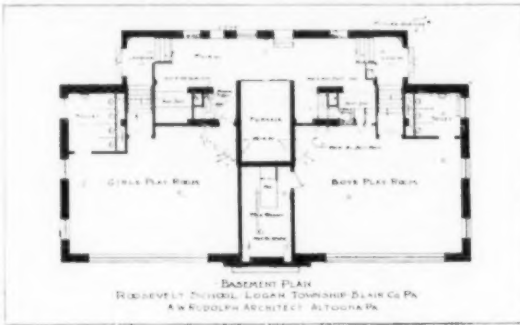
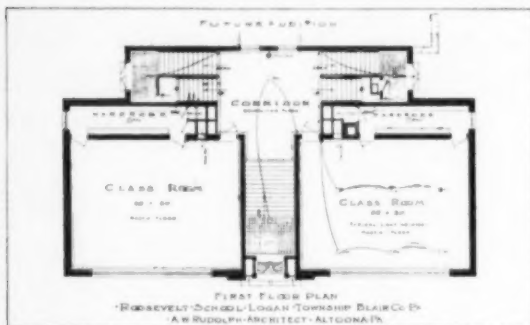
Schoolhouses have been built, some by time-honored combustible, and some by fireproof methods. But it is likely that a distinct episode in building construction was marked when during the month of February, 1923, the school directorate of Logan Township, Blair County, Pennsylvania, with headquarters in Altoona, placed a contract for a fireproof building at a lower figure than some of the bids received in ordinary construction, bids having been taken both ways.

Five bids were received. One of these was outlawed as not complying with conditions. Of the remaining four, three were higher in ordinary construction than was the successful bid in fireproof construction. The result of this bidding showed conclusively that fireproof construction, when intelligently designed, is not expensive, even for small school buildings. In fact, when the ordinary "wood butcher" builder once realizes that better construction is insisted upon, he will learn how to estimate and construct this type of building. When he does, it will be found in most localities, except those particularly remote from the sources of fireproofing materials, that the better construction may be had for no greater cost than that of the



ROOSEVELT SCHOOL, LOGAN TOWNSHIP, PA.

A. W. Rudolph, Architect.



FLOOR PLANS OF THE ROOSEVELT SCHOOL, LOGAN TOWNSHIP, BLAIR COUNTY, PA. A. W. Rudolph, Architect.

time-honored methods by which the country now burns down an average of nearly two schoolhouses a day.

In this building, which has been appropriately named the Roosevelt School, hollow tile, faced with brick form the outside walls. Hollow tile is also used for partitions. Steel joists, a 2½" layer of concrete over them, and a finish of mastic composition, brought up six inches on side walls, completes the floor—a sanitary, wear-proof and fireproof installation. The stairways (two are required by the Pennsylvania school code, even in a small building like this) are pressed steel with cement treads; the windows are steel schoolhouse sash. Unilateral lighting is used. The plaster finishes right up to the steel sash, there being no wood trim whatsoever. In fact, the only wood in the building is the doors and the frames, the door trim being hollow metal into which the plaster is forced from the back, forming a perfectly flush result.

The toilet facilities are in the basement. The fixtures, are absolutely up-to-date, open front seats and oil valve flushometers. The building is wired completely for electric light. It has its own well and an automatic electric pumping outfit, and is heated by fan system.

In the design of the building its possible increase in size has been given every consideration and such increase, when necessary, can be made with practically no destruction to the existing building.

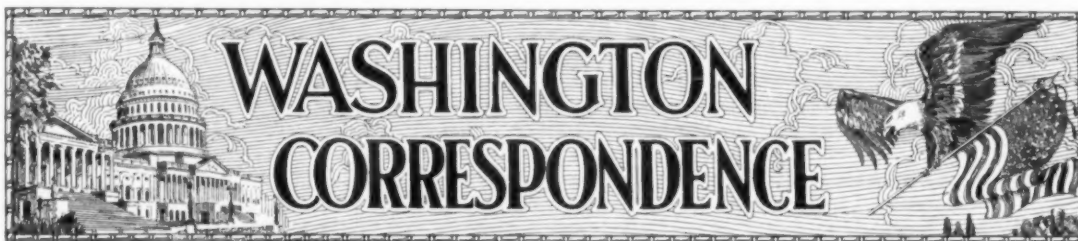
The Roosevelt School contract was let at a general figure of \$28,670. The only other fireproof schoolhouse of like capacity in the state of Pennsylvania was let at a price of something like \$12,000 in excess of this.

The unquestionable advantages of a building of this type are apparent to all. The essential things in acquiring such a building at no

greater cost than in combustible construction are:

First, the designer must have separated himself from the customary methods of construction. He must have a familiarity not only with modern methods, materials, and prices, but their comparative values in the locality where the building is to be erected. The design must have been studied item by item, in order that the economies sought may be arrived at. The prevalent idea of having any kind of a designer lay out a building on paper and then put the plan up to a fireproofing concern to do the engineering, merely means eventual disappointment in excessive costs. The designer must study his problem from the ground up.

Second, the availability of builders who are competent to estimate and undertake this type of construction. It is a type that involves much less skilled labor on the work (and labor is the item of greatest uncertainty and expense both on the estimating table and on the work) because such a large proportion of the items entering into the composition of the building is factory made and comes to the work ready to place into position with a minimum of assembling or fabrication, as against the cost of wooden construction. It is but harping on a well known fact that lumber is daily becoming scarcer, its price higher, the quality poorer and the labor necessary to its use both less efficient and more expensive.



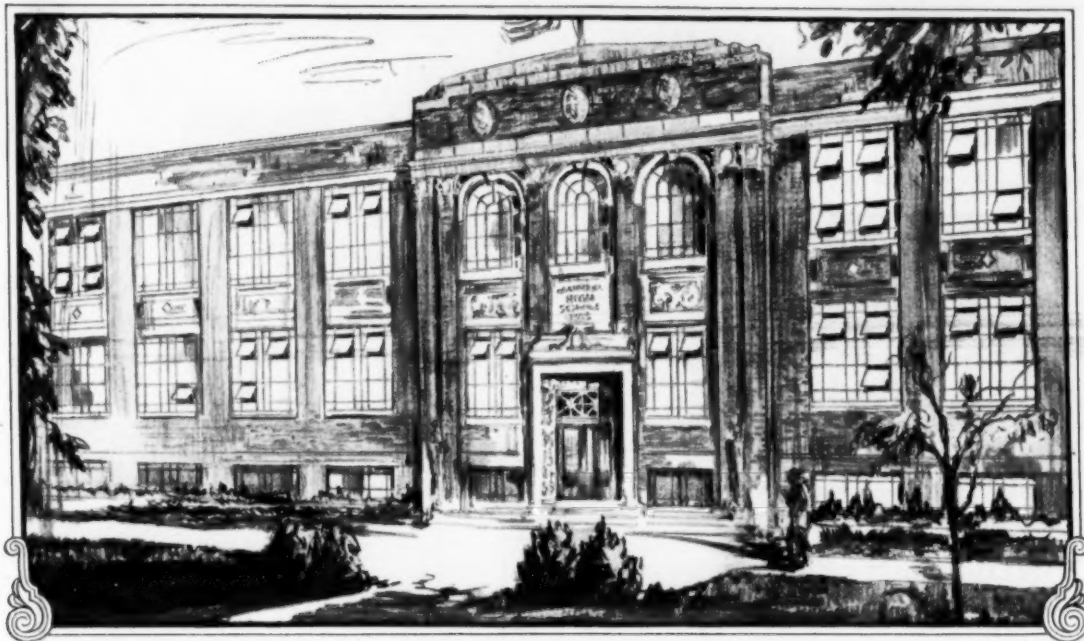
Lt.-Col. A. C. Monahan, S.C., O.R.C., Formerly U. S. Bureau of Education.

The United States Bureau of Standards has recently completed several studies, tests, and investigations of interest to persons in charge of school building operations. They have to do with various building materials, their use and treatment. Stone, for instance, is used in large quantities for school buildings. Much trouble has been experienced for lack of a satisfactory waterproofing and many waterproofing treatments were tried out. The Bureau now announces that it has demonstrated the superior-

ity of paraffin as a waterproofing material. The superiority of paraffin treatment for waterproofing stone has been demonstrated by a weathering test of colorless waterproofing compounds conducted during the past three years. Samples of Indiana limestone and sandstone were used in the tests, one-half of each specimen being coated with the waterproofing compound while the other half was left untreated.

Very little deterioration was noticed in the case of the paraffin treatments during the period

(Continued on Page 66)



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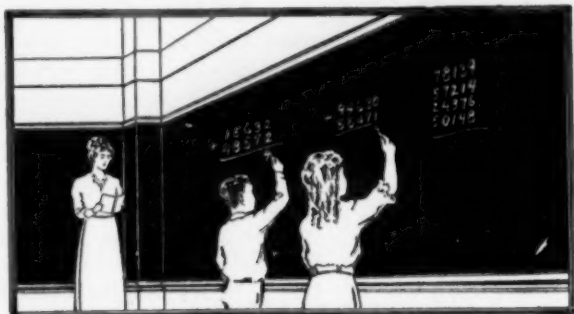
Fenestra

Detroit,
Michigan

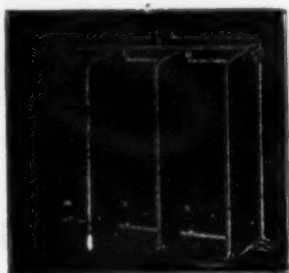
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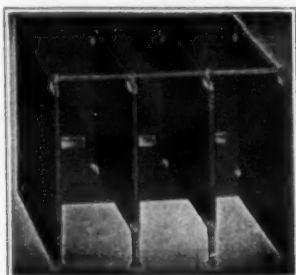
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Are the most economical you can buy, considering the word "economical" in its true sense. It is finished with a beautiful velvety smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

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PENN'A. STRUCTURAL SLATE CO., Inc.

Worth Building

Easton, Pa.

WASHINGTON CORRESPONDENCE.

(Continued from Page 64)

of the test. Materials using aluminum stearate, and mixtures of paraffin and china wood oil, were also found to give good waterproofing values when properly applied. Materials consisting of solutions of glue, magnesium fluosilicate, cellulose nitrate, resins, etc., are not sufficiently durable to justify their use, in the opinion of the bureau.

Most of the materials discolored the stone to a considerable extent at first, depending on the porosity of the stone. Very dense types were not appreciably discolored, while very porous ones appeared greasy for several months after treatment. After a year or more of weathering the discoloration disappeared, and the treated surface appeared lighter and cleaner than the untreated.

A new series of tests is being started with these materials on dense limestones and marbles. A new compound has recently come into use in England which consists of a silicon ester. This material is being included in the tests.

The bureau is testing limestone beams to determine their resistance to sagging. Eighteen limestone beams 28 inches long, 4 inches wide by 1 1/2 inches thick are included in the test. They have now remained for nearly eighteen months, supported at their ends and each carrying at its middle a load equal to two-thirds of the load required to break it. All have sagged under their loads, but none have broken. The sagging varies from .005 to .002 of an inch.

Many cases of fracture in stone buildings have occurred, the bureau states, in which the load was not excessive and in which failure appears to have resulted from long continued application of the load. Marble and granite slabs have been known to assume a permanent

bend or warp under a very slight load, and incidents of this warping in the case of marble can generally be found in old graveyards. Such warping is less common in granite, but a case has come to the bureau's attention in which some granite steps were warped to such an extent that they had to be redressed, as a result of being left on the ground for some time before use.

Oil is becoming more commonly used in heating school buildings during the past few years on account of difficulty in getting a supply of coal. Its use in buildings with slate roofs results in material damage to the slate. The Bureau, investigating an alleged deterioration in a slate roof where an oil burner was in use, has pronounced the deterioration to be real. The bureau finds it is due to the various salts in the soot from the oil burner which cause extensive decay. Being soluble in water, they are leached into the slate by rains and are recrystallized in dry weather. The formation of the crystals tends to pry the particles of slate apart and produces an effect similar to frost action only much more severe.

The disintegration of the slate was first noticed about six years ago, where in some parts it had progressed to the danger point. It manifests itself only on the interior and is invisible from the outside. The process of deterioration begins at the edge of the shingles, and progresses along the direction of the cleavage, reducing the slate to powder.

Composition floors are being tried out on hundreds of new school buildings. Before deciding to use them, school boards would do well to consult the results of tests made by the Bureau and now available in printed form.

Comparatively very few people, who walk on oxy-chloride cement floors, or who live in houses

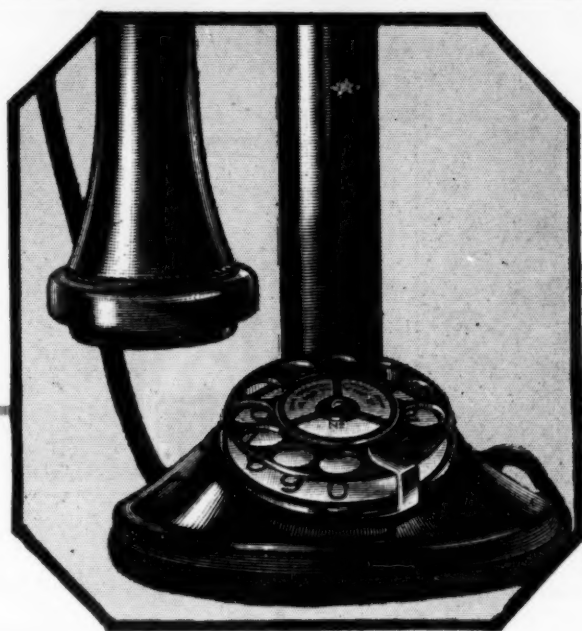
having exterior walls of oxy-chloride cement stucco, are familiar with these materials. In fact, very often the architect or builder knows oxy-chloride cement products only in connection with their trade names. The rapidly increasing demand for these materials is significant of certain desirable peculiarities, and has made it necessary to replace haphazard or "rule of thumb" methods, in the manufacture and use of this cement, with more scientific methods based on the study of numerous tests.

Caustic magnesia, the chief constituent of oxy-chloride cement, was made by the bureau in its experimental cement plant by calcining magnesite ore. The temperature and other conditions were varied in order to study the effects on the properties of the product. An ore imported from Greece, one shipped from the state of Washington, and two from different mines in California were used, as representative of the chief sources of supply for this country. Cement mixtures, typical of those used by the trade, were then made and tested by laboratory methods, and in actual service. The tests were conducted on panels of flooring and stucco, exposed to actual service conditions. The results of this work add to the information necessary in producing the most satisfactory oxy-chloride cement products.

Information of value to the purchaser of glazing glass in insuring the quality of glass he pays for, is contained in a set of U. S. Government specifications recently issued by the bureau. A classification of such glasses is given, together with complete data regarding the sizes and thicknesses of glass obtainable. A method of examining glass is given enabling one to identify the grades commonly marketed.

Perfect glass, the bureau states, is practically

(Continued on Page 68)



The P-A-X is similar to the Automatic Telephone equipment being so widely adopted for city service. It augments and completes but neither supplants nor connects with local or long distance telephone service.

Schools of Every Size Find a P-A-X System to Meet All Their Inter-communication Needs

EVERY school can use the P-A-X to good advantage no matter what its size or how peculiar its requirements.

For instance, the 116-station system installed in the Cass Technical High School of Detroit and the 33-station system in the Sunbeam Grade School of Cleveland meet the specific, individual communication needs of these establishments economically and completely.

In every installation of the P-A-X provision is made for easy and economical expansion of equipment or service as changing conditions demand.

Interior Telephony, Code Call, Conference Wire, Principal's Priority Wire, Monitor Service, etc.—any or all of these are available to the school equipped with the P-A-X.

Quick, accurate and convenient inter-communication for nearly 2000 users in every field of enterprise—that's the daily record of the P-A-X.

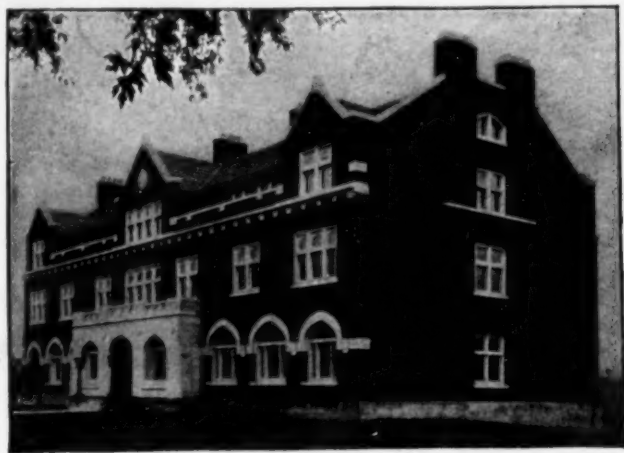
Being automatic, the P-A-X saves an average of 18 seconds per call and is ready to give instant and accurate connections at any hour of the day or night. It dispenses with the service of a switchboard operator and pays for itself in a short time by saving her salary.

Our latest product is a simple inexpensive system, especially designed for the smaller school in which the larger, more comprehensive P-A-X is not justified. This system provides the advantages of the P-A-X service at the lowest possible cost.

Automatic Electric Company

Originators of the P-A-X. For more than 30 years the engineers, designers and manufacturers of the Automatic Telephone in use the world over. Home Office and Factory, Chicago, U. S. A. Branch Offices: NEW YORK, 21 E. 40th Street; CLEVELAND, Cuyahoga Bldg. Representatives in all Principal Cities. In Canada—Address: Northern Electric Co., Ltd., 121 Shearer Street, Montreal, P. Q. Abroad—Address: International Automatic Telephone Co., Ltd., Norfolk House, Norfolk Street, Strand, London, W. C. 2, England. In Australia—Address: Automatic Telephones, Ltd., Mendes Chambers, Castlereagh Street, Sydney, Australia.

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Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

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and the directors report the usual "perfect results."

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Samples and full details on request.

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You'll find the bulletin "Structural Slate for School Buildings" very interesting. Write for it.

THE STRUCTURAL SLATE CO.
108 Robinson Ave. Pen Argyl, Pa.
STRUCTURAL SLATE

(Continued from Page 66)

never made, but many defects can be present without destroying the utility or the good appearance of the window, provided the glass is properly selected so that slight imperfections are unnoticeable. Glazing glass of various qualities is selected from this point of view.

In the preparation of these specifications, assistance and advice were secured from manufacturers and distributors of glass, and from representatives of the American Institute of Architects, the Federal Supervising Architect's Office, and from sash and door manufacturers' associations. The information gathered is expected to prove useful to the consumer, and helpful in protecting the honest manufacturer and dealer against those who misrepresent the quality of the glass they sell.

Tests of corrugated zinc roofing are now under way at the bureau for the purpose of determining the loads that can safely be carried by this material. Unlike most roofing materials zinc fails, not by breaking, but by bending slowly under a load, the material taking a permanent set. Where heavy loads must be borne continuously, it is not considered desirable unless it is well supported. But where the normal load is light, as it is likely to be in the tropics, zinc roofing should prove more durable than galvanized steel, as the latter deteriorates rapidly from corrosion in hot climates. The test of roofing consists in loading the corrugated sheet with sand, the sheet being supported on a framework representing the roof purlins. The load is left in place for a month or more and the deflection is measured each day.

Satisfactory plastering is often not secured in schoolhouse construction. The fundamentals necessary for good work as determined by three years of study and experimentation are now available from the bureau. Its circular on

plastering is an excellent guide for school boards in checking up on their construction. It tells how plastering is done, and gives directions for the preparation of a masonry wall to receive plaster, specifications for lath, with directions for their mixing and application. The properties of plastering are discussed in detail, and conclusions drawn as to the best kind of plaster to be used for a given purpose. Some of the common defects are explained and their remedies suggested. "Popping," for instance, which sometimes occurs, is due to lime which has been overburned, or which has been burned during hydration. According to the tests made by the bureau, it is noted that small particles appear to expand and push themselves out of the plaster, leaving tiny holes. In extreme cases these holes are sufficiently large or numerous to be unsightly. It has been shown that popping will not be serious if the lime is ground fine enough to pass a number 50 sieve. In that case the lime will be completely hydrated during the mixing and application, or the particles of defective lime will be too small to cause noticeable holes.

Stucco, which also has been the subject of study, has included tests on stucco construction in progress at the bureau since 1911. Panels of stucco made in accordance with different specifications have been constructed and exposed to the weather for a number of years. Some of these panels were of back plastered construction; some were made with wooden sheathing, Paper back construction, plaster board, and other types were also tested. Still others were applied to walls of masonry.

Measurements of the shrinkage of stuccos were also made by means of a special comparator. It was shown that the shrinkage may be controlled to a large extent by regulation of the amount of water used. The general rule is that

the material should stiffen from removal of water before chemical set occurs, and the ability to recognize this condition is considered a necessary part of the plasterer's practical knowledge of his craft.

Masonry walls were found to make the best bases for stucco, for on them the finest stucco textures can easily be used. Fine textures are not recommended for use on frame construction, as they show cracks not visible in coarser textures. When stucco is used on wooden frame, the frame should be well braced, and the use of metal or wire fabric or metal lath for reinforcement utilized. The tests showed that better results are obtained by omitting the sheathing, using special insulation and bracing where required. If sheathing is used horizontal sheathing is preferable to the diagonal, used in most of the sheathed test panels. Special attention should be given to the tying or lacing of the fabric or lath so that the joints do not constitute a line of weakness in the reinforcement.

Lean mixtures in masonry construction were found to give the best results. A mixture of one part cement, one-fifth part of hydrated lime, and three parts building sand is recommended. Good design is considered essential and involves adequate flashing and overhead protection. Stucco construction should be restricted to vertical surfaces or to those which drain quickly.

Six years ago the bureau issued a 260-page circular entitled "Materials for the Household." It was prepared particularly for home builders to acquaint them with building materials, but is of equal value to school board members and to superintendents under whose direction school building operations are carried out. It describes under the heading *Structural Material*, wood, metal, lime, plaster, cement, paint, and

(Concluded on Page 70)

How much light

should school children have?

*Even plants need light
for growth and health.
So do children. But
how much?*

THE State of New York has reported 141,000 cases of defective vision among the school children in that state alone, and Dr. Wm. A. Howe, head of the health department of the N. Y. State Board of Education, declared a large percentage of these defects were due to poor lighting.

Furthermore, it has been discovered that children recognize objects and words much more rapidly, and hence learn much more quickly, when the light under which they work is increased from the intensities commonly used to a more effective level.

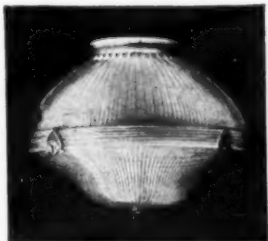
How much light should there be in *your* school rooms?

This and many other vital questions about school lighting are answered in our booklet, "Modern School Lighting."

It also explains the important function which Holophane Reflectors perform by distributing the light more effectively than is possible with any other equipment. This means more illumination from any given amount of current.

Send for the booklet, or send plans of either new or old buildings to our engineering department. These will be returned promptly with specific engineering recommendations for the best illumination for each particular location. This service is without any obligation to you.

R-r (Reflector refractor), a combination of direct and indirect lighting, widely used as Standard equipment in Classroom Lighting.



Filterlite — the latest and most efficient enclosing unit of the indirect type. A remarkable combination of efficiency and good looks. Especially appropriate for School Lighting.

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Directs Light Scientifically

To have GOOD SCHOLARS you — must have — GOOD LIGHT

The child that sees the printed page or the writing on the blackboard indistinctly suffers a nervous strain as well as eye strain.

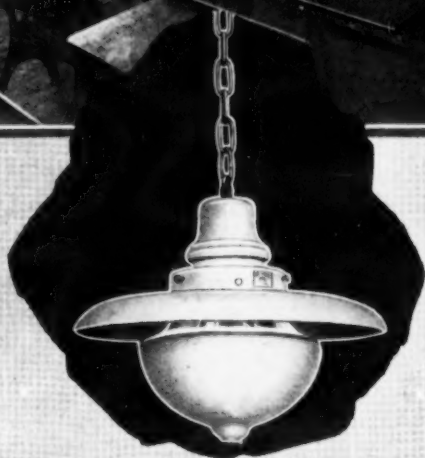
At this moment no subject is of more importance than that of providing good, artificial illumination for your class rooms.

Hundreds of School Boards have settled this matter once for all by installing DENZARS in every room in their school buildings.

DENZAR—"the unit of day brightness"—produces a soft, restful light of ample intensity on every desk and blackboard. Glare and gloom—the two things to be avoided—are unknown in the DENZAR lighted room.

Write for descriptive bulletin illustrating plain and ornamental types of Denzar suitable for school use.

Beardslee Chandelier Mfg. Co.
219 South Jefferson St.,
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(Concluded from Page 68)

bituminous roofing. It gives information concerning each, the various grades and kinds, where they should be used and what may be expected of them. It discusses also cleansing agents, preservatives, and disinfectants, fuel, illuminants, and lubricants. It is a non-technical bulletin with a practical purpose of stimulating interest in building materials, explaining their desirable properties, aiding in their intelligent selection and promoting their effective use. The Bureau of Standards stands ready to assist with expert advice on building problems at any time.

SCHOOL LAW

RHODE ISLAND TEACHERS' PENSION LAW SUSTAINED

The continuance nisi of a petition for mandamus entered in the Superior Court of Providence County, Rhode Island, follows an agreement by counsel that teachers' pensions in the State of Rhode Island are to be paid quarterly from money in the state treasury not otherwise appropriated, even if appropriations for pensions are not made annually by the General Assembly. Legal proceedings followed refusal by the state auditor to indorse pension orders addressed to the general treasurer. The reason for the refusal was failure by the General Assembly, which had been in session continuously from January to September, to pass the annual appropriation bill, which carried provision for pensions.

This has been a troublous year politically in Rhode Island. In an endeavor to force the Republican majority in the senate to pass a resolution submitting to referendum the question of holding a constitutional convention, the Democratic members, with the assistance of the

lieutenant governor, who is the constitutional presiding officer in the senate, conducted a filibuster and had established an effective barrier against legislation. Day after day the senate adjourned without reaching its calendar for the day. The appropriation bill, passed by the house of representatives and reported to the senate for concurrent action, found a place behind the barricade. Most departments of the state government were seriously embarrassed for want of ready money, and then the auditor's ruling promised to leave pensioners without money also.

Under these circumstances, with the sanction of Commissioner Walter R. Ranger and of the state board of education, which under the statutes is entrusted with the administration of the pension law, Dr. Charles Carroll, who besides being deputy director of vocational education, is counsel for the board, filed a petition for a writ of mandamus on behalf of the pensioners, and citation was issued against the state auditor. In conference with the attorney general, who appeared on behalf of the auditor, it was agreed that Dr. Carroll's construction of the law was essentially accurate; that as the statute directed payment of pensions when certified by the state board of education and did not mention an appropriation as the source of money from which payment was to be made, no appropriation was intended by the statute, and that none need be made; and that, assuming an appropriation necessary, the appropriation was actually made by the pension law itself, as it stipulated the amount of the pension by legal ratio, being effectually a statement of the amount. The presentation was so convincing that the attorney general advised payment. Payment was made, therefore, without pressing the petition to argument in court and decision.

The precedent established is significant. For some years there has been a criticism of state teachers' pension plans, based as is the Rhode Island plan exclusively on state support, there being no assessments upon teachers' salaries or other contributions by teachers, that these are precarious and dependent altogether upon the good will of legislative bodies making annual or biennial appropriations, as the case may be. The Rhode Island precedent raises the pension plan over the hazard of failure of appropria-

tions, and the incident suggests the importance of drafting pension legislation in such manner as to make the pension sure and certain. The latter may be done, as indicated. Again the incident emphasizes the desirability of care in drafting educational legislation, whatever the subject matter. The substance of law is always important; there are occasions when a neglect of care in matters of form may operate to determine eventually and ultimately the success or failure of legislation.

RECENT DECISIONS.

School Lands and Funds

In the absence of fraud or such misconduct as would justify the jurisdiction of a court of equity, the action of a board of education of a city of the second class in selecting a site for a school building will not be reviewed by the courts.—Tripp vs. Board of Education of City of Lawrence, 227 P. 345, Kans.

Under the Texas revised statutes, arts. 4509-4511, decisions of state superintendent of public instruction are final unless reversed by state board of education, and courts will not interfere with the exercise of his discretion within the scope of his authority unless there is a clear abuse thereof or violation of law, and they will not consider whether his decision is wise or expedient.—State vs. Abshier, 263 S. W. 263, Tex. Com. App.

Whether an exercise of discretion by the superintendent of public instruction is reasonable under given state of facts is a question of law for the court.—State vs. Abshier, 263 S. W. 263, Tex. Com. App.

The state superintendent of instruction and the board of education do not have exclusive authority to determine questions relating to their jurisdiction and power; but such questions are subject to inquiry by the court.—State vs. Abshier, 263 S. W. 263, Tex. Com. App.

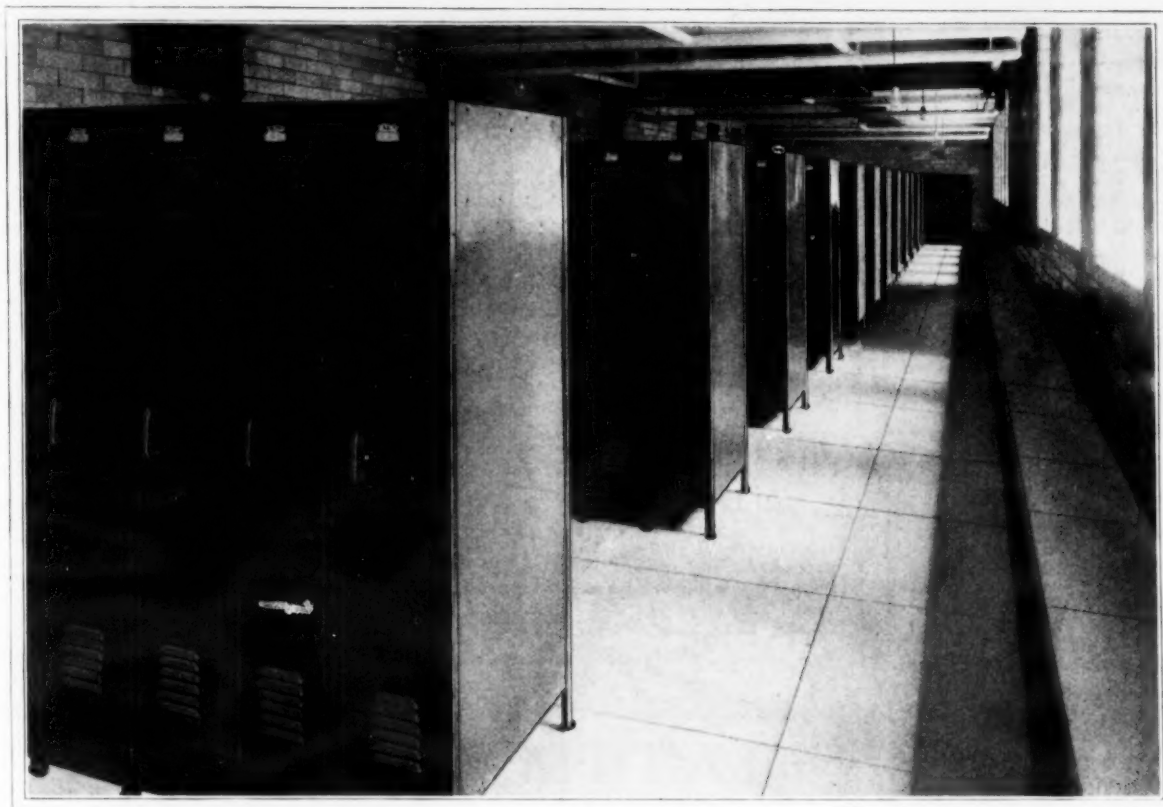
Under the Texas revised statutes, arts. 4509-4511, a decision of the superintendent of public instruction as to where a high school should be located and as to its organization, etc., sustained an appeal to the board of education, is not reviewable by the courts.—State vs. Abshier, 263 S. W. 263, Tex. Com. App.

Schools and School Districts

The county school board has power to create

(Continued on Page 73)

LYON STEEL LOCKERS



Down the Corridor of Years

Term after term, year after year, class after class, Lyon Lockers render continuous, abuse-resisting service. They simply don't wear out.

Lyon honesty of construction, quality of materials and exclusive features of design produce locker installations that are a source of permanent pride, permanent usefulness.

Locker equipment is bought for the life of the school. It is an investment to be

viewed from the same rigid standpoint as the stones and masonry of the school building itself.

Send for a copy of the Lyon Locker Handbook, covering in detail all problems that arise in installing school and gymnasium lockers. Investigation will help you understand why leading educational institutions throughout the country have standardized on Lyon Lockers as a matter of good business.

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The expenditure of public funds for education involves a sacred obligation on the part of school administrative officials to secure the greatest educational value for every dollar spent.

Economy in school administration means the efficient investment of public monies in school buildings, equipment, supplies and in educational direction that will return to the community Sound American Education over the greatest number of years.

Errors in school planning are perpetuated for many years in the form of inefficient school building. Equipment although low in first cost may mean high operating expenses and early replacement. Lack of foresight, in the selection of school sites and in financing, may mean high educational costs for years to come.

The employment of an expert on the part of school authorities is the most efficient means of securing economies and avoiding errors in solving the problems of school administration. The services of the specialist will effect economies not only in successfully meeting the immediate educational requirements, but in securing these economies over a period of years.

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The Milcor Line is complete and practical in every detail. It is fully described in the

new Supplement to "The Milcor Manual", a valuable Data Book on Metal Lath and Firesafe Construction Methods.

Copies will be gladly sent without cost or obligation to School Board Members, Architects, Engineers or Contractors. (Note: Many Manual Training Teachers have asked us to furnish these Data Books in quantities for use by pupils. We are always glad to co-operate in this manner. Do not hesitate to ask us.)

The Milcor Metal Chalk Rail No. 125 is made of 24 Gauge Steel. It can be firmly attached to the wall with wood screws. The perforated metal tray is removable for cleaning. This is an ideal, permanent, sanitary Chalk Rail and is unexcelled for fine appearance. Stock lengths are 10 feet. Special lengths to order. Investigate. Start with the Coupon.

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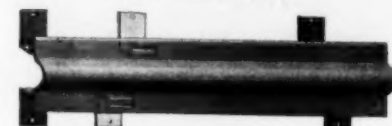
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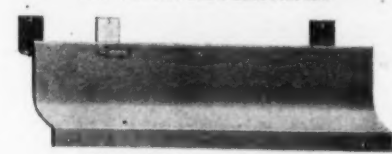
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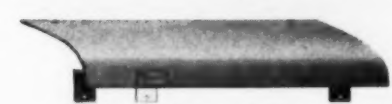
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Gentlemen: Without cost or obligation, please send your Milcor Manual and Supplement.

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(Continued from Page 70)

consolidated school districts, independent of any position, and may locate the site for the erection of a school building therein, and the court will not control their discretion in reference thereto.—Peets vs. Martin, 101 So. 78, Miss.

School District Government

While courts may not consider merits of a proceeding before a county board of education to remove a superintendent appointed for a fixed term or reverse for any error occurring therein, sufficiency of cause is a question of law for the courts, and necessary steps will be taken to prevent removal where cause alleged is legally insufficient.—Graham vs. Jewell, 263 S. W. 693, Ky.

In proceedings before a county school board to remove the superintendent of schools for cause, the strict formalities of legal procedure are not required, but it is essential that the findings be supported by some evidence and be based upon sufficient charges, and evidence must be competent and relevant.—Graham vs. Jewell, 263 S. W. 693, Ky.

Charges against the school superintendent in proceeding for his removal under the Kentucky acts of 1920, c. 36, should be reasonably definite and certain, and should show what acts are complained to be "incompetent" or "immoral," though certainty in this respect may be waived by failing to move to make certain.—Graham vs. Jewell, 263 S. W. 693, Ky.

The words "incompetency and immoral conduct" in the Kentucky acts of 1920, c. 36, § 7, relating to the removal of the county superintendent, have no technical meaning.—Graham vs. Jewell, 263 S. W. 693, Ky.

Charges against a school superintendent are held not to sufficiently charge "incompetency and immoral conduct" within the Kentucky acts of 1920, c. 36, § 7.—Graham vs. Jewell, 263 S. W. 693, Ky.

The general testimony of witnesses that the bookkeeping was inferior and negligent would not warrant removal of a county school superintendent under the Kentucky acts of 1920, c. 36, § 7.—Graham vs. Jewell, 263 S. W. 693, Ky.

The acts of school trustees in office, and recognized by authority as such, are valid, regardless of whether they were regularly or rightfully elected.—Peets vs. Martin, 101 So. 78, Miss.

School District Property

Notes executed by the president and secretary of a school board, but which were unauthorized by the board of school directors, there being no record of any affirmative vote relating thereto, were void and unenforceable against the school district, in view of the Pennsylvania act of May 18th, 1911, § 403 (P. L. 330; Pa. statutes of 1920, p. 4746).—Jackson vs. Conneautville Borough School District, 125 A. 310, Pa.

That funds for which a district's notes were given were advanced by a bank in cashing warrants which the district issued in good faith for current expenses was immaterial in determining their validity, where school district took no step to repay the loans, and the taxing power and all other sources of income were wholly insufficient to defray the current expenses and to repay loans.—Jackson vs. Conneautville Borough School District, 125 A. 310, Pa.

Teachers

Under the revised Missouri statutes of 1919, 11145, where the attendance of a colored school was less than eight scholars per month, a board of directors had a right to discontinue it and to discharge a teacher hired under contract for eight months, regardless of section 11138, providing that neither party to a teacher's contract shall dismiss nor suspend a school without the consent of the other.—DeHart vs. School District No. 39, St. Louis County, 263 S. W. 242, Mo.

Where a teacher in group A, class four, receiving a salary of \$1,010, was promoted to the position of a high school teacher in class six, under the District of Columbia act of June 20th, 1906, § 6, she was entitled to receive the salary in class six, which is next above the salary she was receiving.—District of Columbia vs. Gardner, 298 F. 1005, D. C.

LAW AND LEGISLATION

—When it was discovered that Miss Emma Sue Reed, a teacher, had secretly married and was now Mrs. Emma Sue Reed Erdel, the school board demanded her resignation. She refused, stating that the contract bearing her maiden name is as good now as it was when signed last spring. She threatens to go into court in the matter. The school authorities

would be glad to get a legal determination of the question.

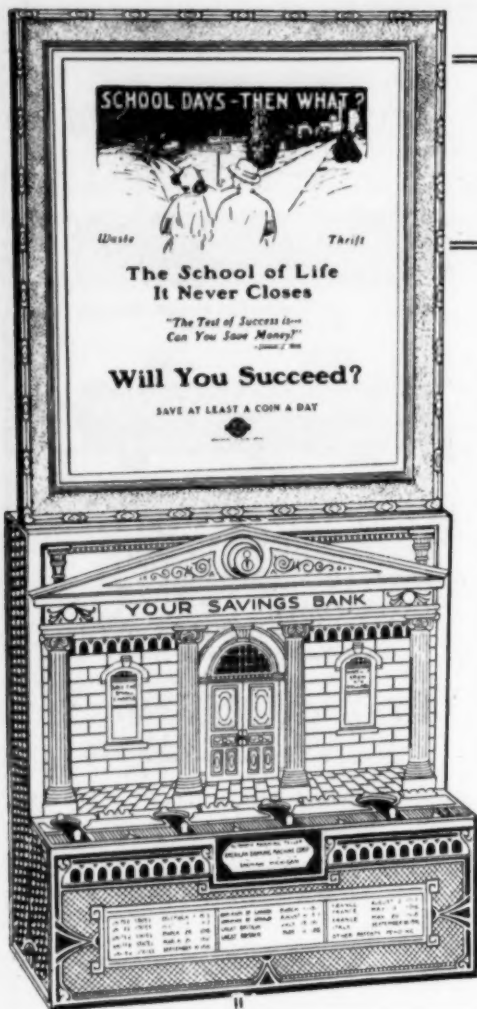
—Complaints have reached the state educational department of New Jersey to the effect that the religious test is being applied in the appointment of teachers. The department calls attention to chapter 179 P. L. 1920, on page 303 of 1921 edition of school law in which the following paragraphs are found: "(1) No religious test shall be required as a qualification for membership in any board of education or for any employee of any board of education, or for any position in any way connected with any school conducted wholly or partly with any state funds. (2) No inquiry of the applicant shall be made by any member of the state board of education, or by any member of any board of education in any school district of the state, or by the commissioner of education, or any of his assistants, by any superintendent, principal, or any person in any way connected with the school system of the state, in regard to the religion of any person proposed for or seeking employment as a teacher or in any capacity in the public school system of the state, or in any school conducted wholly or partly with any state funds. (3) Any person who violates any provision of this act shall be guilty of a misdemeanor."

—The board of education of Weehawken, N. J., brought mandamus proceedings against the township compelling that body to appropriate money for school buildings. It is believed that the suit will be withdrawn and that instead of one new school building three will be secured.

—Medical examinations are to be discontinued in the Chicago schools because of a lack of sufficient authority in the law to continue the expenditure of \$250,000 annually.

—The supreme court of New Jersey has held that the services of a city attorney cannot legally be extended to the local school board. The latter body may employ counsel but it does not follow that the city attorney may be so employed.

—The legality of the half-million-dollar bond issue proposed by the Pottsville, Pa., board of education is questioned by some local lawyers. It is held that the announcement places the assessment value of the city too high by nine million dollars.



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Another Educator Decides:—

"As Superintendent of Public schools I have had five years experience with several 'School Savings Plans,' but find that the Automatic Receiving Teller plan meets most completely the requirements which I should lay down as fundamental.

"I am entirely satisfied that 'Thrift' can be added to the school curriculum, that such instruction is fundamental to any scheme of public education and that the mechanics of saving on the part of the children operates without confusion and without placing an undue burden upon the teacher."

Name upon request.

—A year ago the New York board of education elected Miss Lucille Nicol to a district superintendency at a salary of \$6,600. Objections arose when it was discovered that she lacked the necessary qualifications for such promotion. She applied for a state certificate which was denied. It is said that legislative relief will be sought.

—The school laws of Pennsylvania have been printed in a separate volume noting all the new acts and amendments made in 1923. All paragraphs are supplied with side headings and a complete table of contents has been provided.

—At Chicago a girl pupil named Clara Hartley, aged fifteen, was married. W. L. Bodine, superintendent of compulsory education, has decided that the law will compel her to go to school until she is sixteen. Two other young wives under sixteen are now attending the Chicago schools.

—A movement is on foot in New York state to increase through legislation the state aid school fund from \$39,000,000 to \$62,500,000 to inaugurate a new plan of distribution. The amount that each community would get would be determined upon the basis of a cost of \$70 for the education of each elementary child in average attendance. The local tax for calculation purposes would be 36.4 cents on each \$100 of full valuation and this amount would be deducted from the product of seventy times the average attendance. The remainder would be the state aid allotment. No community would receive less than it now receives and most would get more, the poorer districts much more. New York City would receive \$200,000 more, but would pay in more to the state.

The Akron, Ohio, board of education was enjoined by the courts from awarding the contract for the new Garfield high school to a certain construction company. The board voted to appeal the case to the supreme court but at a subsequent meeting recalled its action. It was believed that the appeal would delay the construction and that a rejection of all bids and re-advertising would prove more practical.

—The board of education of San Antonio, Texas, has taken out group insurance for its teachers. Each teacher is presented with a \$1,000 life insurance policy. The board expended the sum of \$15,000 and the question has

been raised whether under the laws of Texas any school board can expend monies for life insurance. The matter is under advisement of the attorney general's department for decision.

—Constitutional amendments designed to outlaw parochial schools were defeated both in Oregon and Michigan at the fall election. In commenting on the result the New York Evening World says: "The viciousness of the law is found in the interference with the parental rights. Such interference is natural and logical in the case of Soviet Russia, which assumes that men are created for the state instead of the state being created to serve the purposes of man, but it is illogical, unnatural, and un-American in this country. The two defeats on Tuesday may discourage further efforts to Sovietize America.

—Several years ago the voters of Freeport, Ill., voted to form a community high school district. If this were carried, the state would pay a part of the cost but the county court decided that the district was too large and that it would be impossible for some of the pupils to get to school in severe weather and that the district was therefore invalid.

The case was taken to the Illinois supreme court in 1922 but action was held up until last month when the supreme court issued a statement which upheld the decision of the county court. Freeport was prepared for the decision to come as it did and in answer to questions as to what the school board would do President John Bruce said that it would go ahead and plan a school. "Now that the decision has been rendered we are in a position to go ahead and plan for the future and we will lose no time in acting on the question. It is probable that we will ask the people to vote on a bond issue of about \$450,000. The community is anxious to get a new school and I think that the issue will be passed by the community."

PROPOSES NEW SCHOOL BOARD LAWS

The boards of education of New York state have been financially dependent upon city councils and efforts to secure greater independence at the hands of the legislature were made last year. These efforts are to be renewed during the coming session of the legislature.

The Public Education association of New York City summarizes its suggestions in the direction of reform as follows:

1. Assurance that the selection of members of the board of education and their action after selection be removed so far as possible from political domination.
2. Financial security for the board of education and administrative independence from the municipal government.
3. Concentration of power and responsibility as far as possible for executive functions in the superintendent of schools as "chief executive officer of the board of education and of the system," responsible to the board of education for his conduct and efficiency in office.
4. Protection of the merit system and its extension to include a wider range of positions in the professional staff.

As we pointed out a few months ago, there will naturally be an honest difference of opinion on all of these points. We suggest some of the debatable issues:

1. In regard to the first, such questions as the following will naturally arise: Shall the board of education be appointed or elected? How shall the appointments or election take place? Shall the size of the board remain as it is, or shall it be enlarged? In what way, if at all, shall borough lines be observed?
2. In regard to the second, there will be questions like the following: Shall school funds be raised separately by taxation or shall they be secured by the apportionment of general city funds as at present? What limits shall be set upon the amounts of funds to be devoted to school purposes, and how shall they be defined—on a millage basis, a tax rate, a per-capita allowance, or on some other ratio? To what extent shall the state and the city share in providing these funds? How complete shall be the control over these funds by the board of education? Shall the board administer school building funds as competently as it may be empowered to administer funds for annual operating expenses? The questions under this head will be many, the points of view widely divergent, but for that very reason a careful appraisal and a sound conclusion are most essential.

(Concluded on Page 76)

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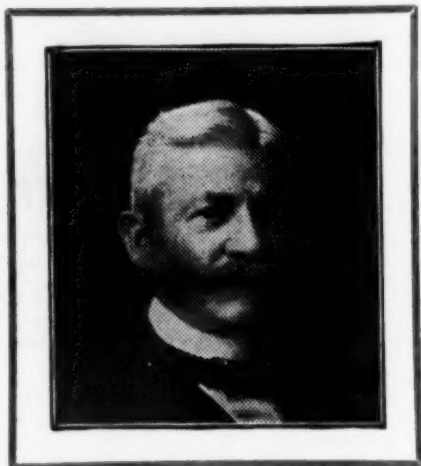
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(Continued from Page 74)

3. In regard to the third, the questions will probably not be so manifold. They will hinge upon conflicting opinions as to whether the schools can best be administered professionally by a single responsible head or by a board of superintendents as at present. The original draft of the present education law provided for a board of superintendents constituted somewhat as the President's cabinet, wherein the associate superintendents would each be responsible, under the superintendent of schools, for some phase of the administrative problem. The superintendents would meet frequently, as at present, for counsel and to advise upon professional policies of general scope, but they would not act, as at present, as a statutory body, in which the superintendent can be outvoted by a bloc of his subordinates on many important policies and administrative measures. We have consistently stood for this reform, which has been widely advocated in many quarters for a decade or more.

4. In regard to the fourth, there will, of course, be considerable discussion as to how far the merit system with eligible lists should be applied. Some will fear that a competitive examination for higher positions in the system may be inadequate because it may determine fitness largely by academic standards. Others will maintain, as we do, that experience has shown the practicability and desirability of filling such, not on the narrow basis of academic standards, but on a just appraisal of careers or success in service. Some will oppose such an extension from purely personal or political motives, but most of the opposition will arise, we believe, from an honest difference of opinion as to how merit can best be safeguarded and justly rewarded. The great majority of the professional staff have long since recorded their thorough approval of the merit system, because they realize that therein their best interests lie. The difference of opinion as to the extent to which the merit system should be applied will have to do largely with method, we believe, rather than aim. In our last issue we gave an interesting example of how the principle of the competitive examination can be extended to cover a wider range of positions.

ORGANIZING AND ADMINISTERING RURAL SCHOOL SYSTEMS

Recognition of the county as the most serviceable unit for the administration of rural schools, forms the basis of a study issued by Benjamin J. Burris, former state superintendent of Indiana.

Mr. Burris recognizes the state as the unit for general school control. He then mentions the several units of local control, the districts, the town (in the New England sense), the township, and the county, and explains:

"The county as the local unit of rural school organization is not, however, to be confused with the county as the local civil unit. Their boundaries are the same, but the two—school county and civil county—are separate, and distinct, each with its own powers and resources. Use is made of the officers and facilities of the civil county in such matters as assessing property for school taxes and in collecting the same and also in school elections, but this is done for the sake of economy and efficiency, and not because the school county is dependent on, or subordinate to, the civil county. Being thus entirely divorced from the civil county, the county school system can be administered and managed on a professional basis, free from political influence and interference.

"County residents who have had no experience with the county school unit may, however, wonder whether a single board, meeting once or twice a month, can properly administer school systems that include many schools scattered over a considerable area and affected by many different local conditions. We may say at once that a small county board cannot perform this task unless it possesses a proper administrative organization. If it possesses such an organization, then the county board can perform the task more efficiently than it can be performed in any other way yet devised. But a county board with proper organization does its work in a manner different from that usually employed by the district or township board."

The educator then discusses the smaller units of school government, pointing out their weakness and proceeds to outline the county unit and its administrative advantages. He outlines a county board and its powers as follows:

The County Board of Education

"At the head of a county school system is a

county board of education. A county board of education should be composed of representative citizens of the county from outside the cities, unless the cities are included in the county school system. No one subject to the board's authority or financially interested in its transactions should be eligible for membership. It should be small enough to work easily and effectively, yet large enough to be representative; the usual membership ranges from five to nine. To guarantee stability and to secure continuity of policies, the term of office should be reasonably long—four or five years—and the expiration of the terms of office of the different members should be so arranged that not more than one or two members go off or come on the board at any one time. Members should be eligible for reelection, and removable only for cause. They should be elected directly by the people, and preferably at large.

"As in city systems, no salary should attach to the office, but members should be allowed a small sum annually to cover personal expenses incurred in the performance of their duties. Public-spirited citizens, desirable as school board members, are as willing to serve without pay as with it. With no salary attached, those who are unfit for such positions, but are attracted by financial reward, are eliminated. The county superintendent should be the secretary, and the county treasurer should serve as treasurer.

"A county board of education is responsible to the people of the county for the satisfactory conduct of their schools. To meet these responsibilities the county board of education must, subject to the laws of the state, possess full power over the financial, business, and educational administration and management of the schools, which it will exercise through its executive officer, the county superintendent. This is fundamental; no boards can be held responsible unless its powers are commensurate with its responsibilities.

"The most important of the powers vested in the county board of education are as follows:

"1. To appoint an executive officer, the county superintendent, through whom the board exercises the powers vested in it, and to provide the county superintendent with an adequate number of assistants.

"2. To plan a complete system of public

(Concluded on Page 78)

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(Concluded from Page 76)

schools for the county, and, in accord with this plan, to determine the kinds and grades of schools to be established and maintained, to locate them, divide the county into school attendance districts, and provide for the transportation of school children.

"3. To provide and maintain grounds, buildings, and physical equipment for all the schools of the county.

"4. To prescribe courses of study, within general state regulations.

"5. To adopt textbooks, within general state regulations.

"6. To provide instructional equipment and supplies.

"7. To employ all principals, supervisors, teachers, janitors, bus drivers, and other regular school employees, fix their salaries, assign them to their positions or work, and dismiss them for cause.

"8. To prepare a budget, and to fix, subject to the tax-rate limits of the state law, the current school tax rate, and make or cause to be made the annual school tax levy.

"9. To issue bonds, subject to the limits of the state law, for new permanent improvements, or submit to the people for their approval the question of issuing bonds."

INDUSTRIAL ACCIDENTS TO MINORS

The Children's Bureau of the United States Department of Labor has just completed a study of industrial accidents to minors in three states. The study covers accidents occurring during the past year and shows that of the total 7,000 or more accidents, 38 proved fatal and 920 resulted in partial disablement for life.

The study covered the three states of Wisconsin, Massachusetts and New Jersey and the cases were taken from the records of the industrial commissions and accident boards. In Wisconsin, accidents caused disability of more than seven days' duration; in Massachusetts and New Jersey, accidents caused disability of more than ten days' duration.

The smallest number of accidents and the lowest accident rate occurred in the case of children under sixteen years. Each of the states studied has attempted to protect children under this age by prohibiting them from employment in certain dangerous occupations. Children of sixteen and seventeen years have been prohibited from some employments in

Massachusetts and Wisconsin; but in all three states they have been permitted to operate many dangerous machines. It is shown that power-working machinery caused a larger percentage of accidents to the sixteen and seventeen-year-old workers than to children under sixteen protected by law.

It is also pointed out that under the existing conditions, accidents are more serious to the sixteen and seventeen-year-old group than to either the younger or older workers. Of the injuries to workers under sixteen years, 10.7 per cent resulted in death or partial disablement for life. For those sixteen and seventeen years old who were injured, the rate was 13.4 per cent killed or permanently disabled; for the group 18 to 21 years, the rate was 12.7 per cent.

ASSOCIATION ELECTIONS

—The Illinois valley division of the Illinois State Teachers' Association has elected the following officers: President—Edna O. Clark, Ohio, Ill.; vice-president—J. C. McMillan, Mazon; secretary—Sherman Littler, Henry; treasurer—A. H. Karn, Peru; executive committee—C. H. Kingman, Ottawa, chairman; K. C. Merrick, Morris; L. C. Smith, Wenona.

—Dr. W. P. Dearing, president of the Oakland City College, was elected president of the Indiana state teachers' association. Miss Mattie Frye of Muncie was placed on the executive committee. Gertrude Mitchell of the same city was named a delegate to the N. E. A. convention.

—The Association of School Superintendents of Massachusetts elected the following officers: President, Harvey S. Gruver, Lynn; first vice-president, John Desmond, Jr., Chicopee; second vice-president, Chester R. Stacey, Webster; auditor, Burr J. Merriam, Framingham; secretary-treasurer, S. Howard Chace, Beverly.

—At Menomonie, Wis., an investigator discovered that Marjorie was the favored name among the girl pupils and John among the boy pupils. We know exactly what John means, but will the investigator tell us what Marjorie stands for. Is it Mary, or something else?

—From Syracuse, N. Y., comes the information that the purchase of coffee urns for the school cafeterias may lead to a new controversy between the school board and the mayor. The joke here seems to be that the mayor has ordered the coffee urns without the consent of the school board.

—The Southwest Missouri Teachers' Association elected the following officers: President, Roscoe V. Crane, Lebanon, to succeed Miss Alice Harrison. Other officers elected were: H. L. Holt, of Buffalo, first vice-president; B. A. Cartwright, second vice-president; Miss Hazel Milam, third vice-president; Mrs. A. T. Moore, Springfield, secretary; T. E. Babb, Springfield, treasurer; W. Y. Foster, Springfield, railroad secretary.

—The Northwestern division of the Illinois State Teachers' Association elected the following officers: President—F. P. Donner, Freeport; vice-president—C. L. Lyon, DeKalb; secretary—Miss Helen C. Hays, Kings; treasurer—H. H. Smith, Savanna; chairman executive committee—S. E. Raines, Freeport; members executive committee—S. F. Pearson, DeKalb; Mrs. Anna B. Dexter, Rockford; Governing Committee—Appropriations—P. F. Grove, Mt. Carroll; legislative—C. W. Whiten, DeKalb; Resolutions—Miss Roberta S. Amrine, Sycamore.

—C. J. Anderson of Madison was elected president of the Wisconsin Teachers' Association. Mr. Anderson was formerly superintendent at Stoughton. He is now the assistant state superintendent. Other officers elected by delegates to the assembly meeting are: First vice-president, R. E. Balliet, Sturgeon Bay; second vice-president, D. W. Wright, Oshkosh; third vice-president, Miss Emma Jacobson, Walworth county; secretary, E. J. Doudna, Madison (re-elected); treasurer, G. F. Loomis, Kenosha (re-elected); three members of the executive board, Lillian McCormick, Superior; Thomas E. Sanders, Racine, and Frank Head, Manitowoc, whose terms had expired, were unanimously re-elected.

—C. A. Arganbright was chosen president of the Northwestern Ohio Teachers' Association. R. E. Offenbauer was named president of the Ohio School Masters' Club, a branch of the association. Miss Elizabeth Fisher was elected corresponding secretary and H. A. Jones, of Toledo, executive secretary.

—At Los Angeles, California, some of the schools have been closed under quarantine, fighting a new malady known as the "pneumonia plague." At other points in the West, schools have been closed because of a prevalence of infantile paralysis.

Developing Healthy Bodies to House Growing Minds!

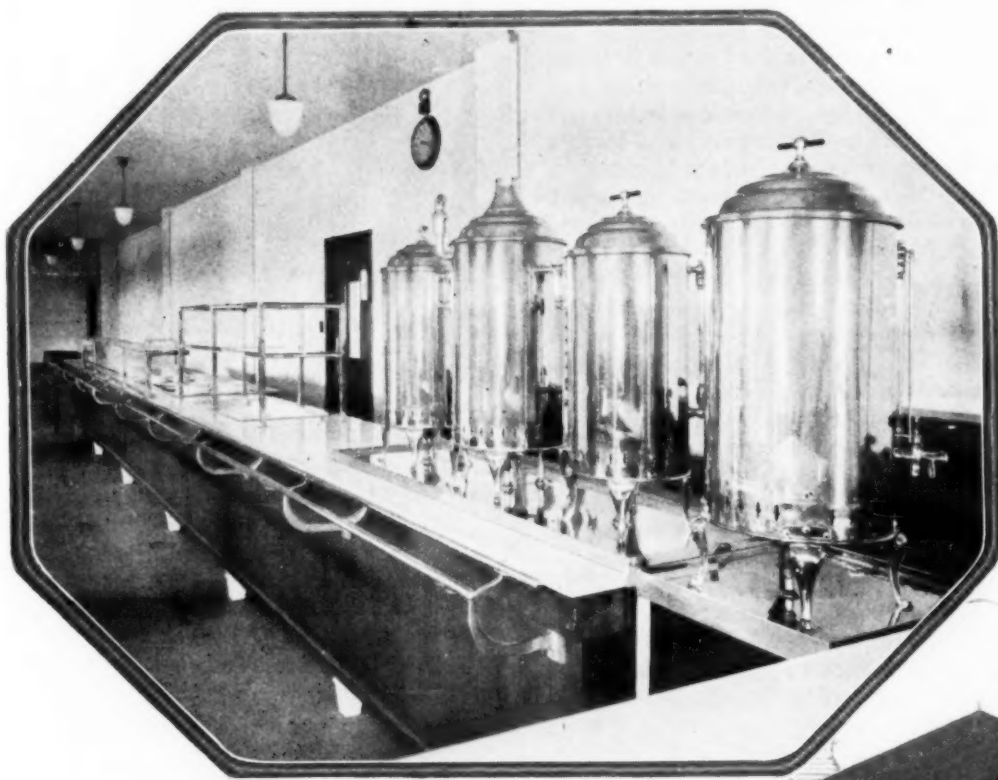
GROWING minds flourish only when young bodies are well nourished. This is an accepted principle of education. While only a few years ago School Feeding was a comparatively new thought, causing considerable interest and discussion, it is today so thoroughly substantiated by experience that practically no new school is built without provision for feeding its students. Now the question is *how best* to plan and equip school cafeterias. Educators are demanding the better type of equipment, convinced that it is the most economical in the end. Instead of buying a cook stove and some tables and chairs, complete cafeteria equipment of the highest order is generally required. Good health, through well-cooked food, is the end and aim. It has been the privilege of Albert Pick & Company to serve more schools than any other similar organization. In fact, PIX Cafeteria Equipment has set the standard for the entire school world. Its superiority has been proved by actual use.

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Middletown High School, Middletown, Ohio
Triadelphia High School, Elm Grove, W. Va.
Mo. State Normal School, Warrensburg, Mo.
Columbia High School, Columbia, S. C.
Junior High School, Beaumont, Tex.
Albion College, Albion, Mich.
Gastonia High School, Gastonia, N. C.
Alvernia High School, Chicago, Ill.

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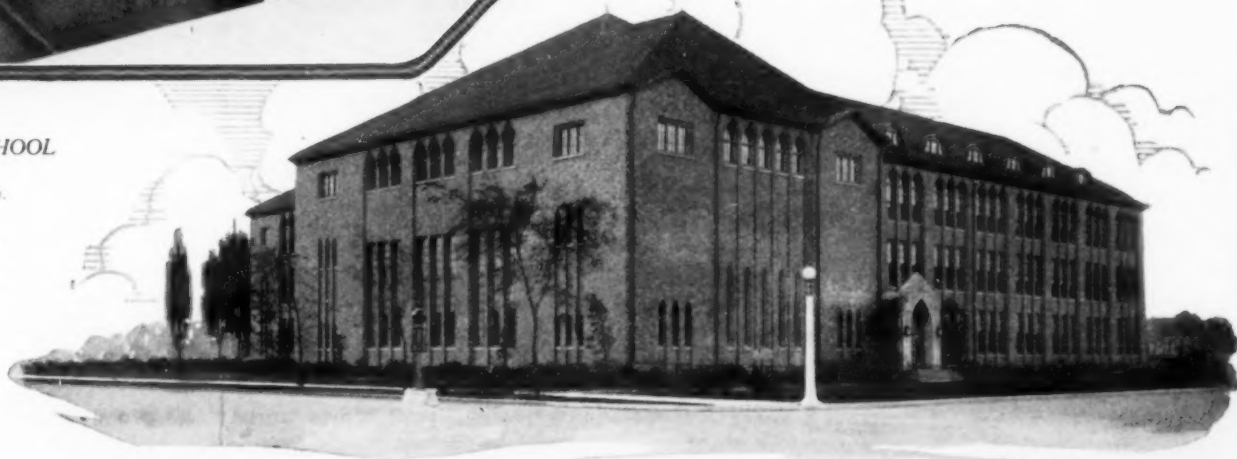
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Inequalities in School Opportunities in Illinois

Robert C. Moore, Director, and Lester R. Grimm, Statistician of the Department of Research and Statistics, Illinois State Teachers' Association.

The rural districts of Illinois differ greatly in their ability to furnish school support. Under present conditions nothing like equality of educational opportunity can be offered to our boys and girls.

In some districts the children are remarkably fortunate in having the privilege of attending a school where there is a large valuation for the basis of supporting education; in these same districts, too, wealth is remarkably "fortunate" in being so located that it is not called upon to bear anything like a due share of responsibility in preparing well-trained citizens of the future.

Thus, for instance, we find that district 50 of Lake county has an equalized assessed valuation of \$2,394,345. This rather high figure seems to be due for the most part to an accumulation of personal property scheduled in that district. In fact, this valuation is 15.3% greater than the 1923 valuation of all of Hardin county; it is more than the total of the lowest 64 districts of Pope county; it is 47 times the valuation of district 59 in Lake county; it is more than that of the Mt. Carmel district in Wabash which has an enrollment of about 1,600;

To produce the same amount of revenue for educational purposes as was produced for district 50 in Lake, District 57 in Pope would require a tax rate of \$8.65. To produce as much revenue as was raised in District 36 of Clark, district 151 of Wayne would find it necessary to have a tax rate of \$16.00 on each \$100 of equalized assessed valuation.

There are some districts which have a rather good income from the township fund, and there are a few which have endowments. These, how-

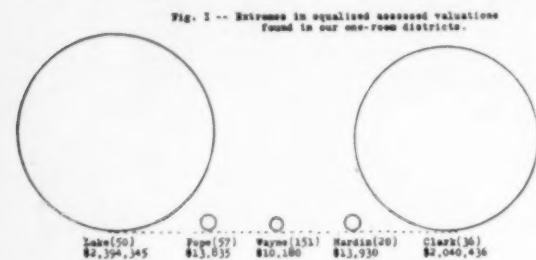


Fig. I -- Extremes in equalized assessed valuations found in our one-room districts.

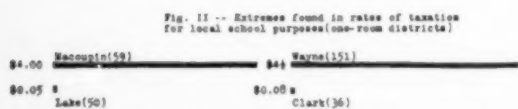


Fig. II -- Extremes found in rates of taxation for local school purposes (one-room districts)

it is more than that of Harvey district in Cook which has 1,335 pupils; it is 20% greater than that of the Pana grade district of Christian; it is 23% more than that of Forest Park grade district in Cook; it is 10% more than that of the Collinsville grade district in Madison; and it is 65% more than that of Carbondale grade district of Jackson county. If the Dorrisville grade district of Saline is able to care for its enrollment of 423 children, then this wealthy one-room district is able to care for 4,500 pupils; that is, under such a condition there would be the same valuation back of each child enrolled.

Comparing district 50 of Lake with other districts named in Figure I, we may say that it is 172 times as able to support a one-room school as is dist. 20 of Hardin, 173 times as able as dist. 57 of Pope, and 235 times as able as dist. 151 of Wayne!

Some of the same districts mentioned in Figure I have been included in Figure II; and we notice that there is a strong tendency to try to make up in effort what is lacking in ability.

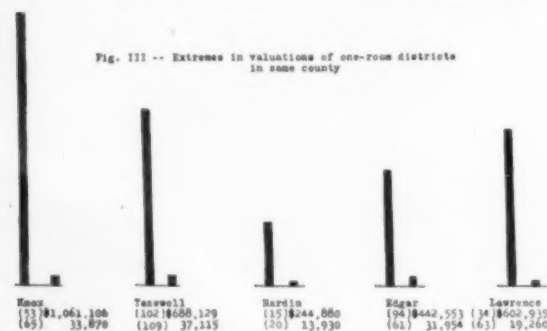


Fig. III -- Extremes in valuations of one-room districts in same county

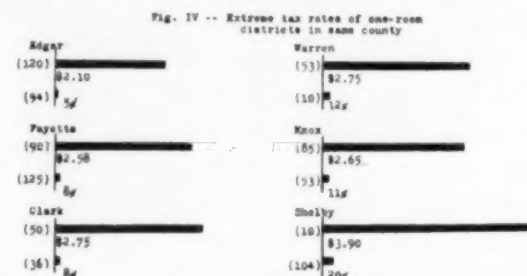


Fig. IV -- Extreme tax rates of one-room districts in same county

ever, are rare; and the figures which we are trying to emphasize are from districts which must depend upon taxation as the basis of school support.

Some of the extremes in rates of taxation for one-room schools inside the same county are indicated in Figure IV.

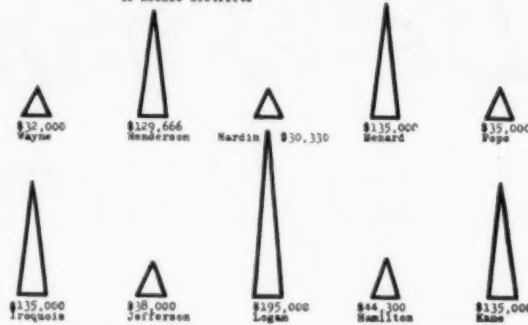
Since the title of this article contains the word *inequalities*, we need to offer no explanations for the use of extremes. However, we shall say that our numerous examples indicate that the extremes are by no means rare. Let us, however, adopt a measure which will be a fairly safe standard for showing the valuations of all of the one-room districts of the counties being considered. By distributing the districts of the county from the lowest to the highest in valuation, we may determine the middle district of the distribution. Then the middle districts of two counties when compared give a general idea of the relative abilities of the two counties so far as their one-room districts are concerned. In Figure V the valuations thus arrived at are indicated for some of the counties.

The preceding paragraphs and the accompanying graphs show that in the state as a whole there exist very great differences in valuations and in rates of taxation in our one-room schools, that these differences are found not only between individual districts but also between counties when comparable measures for all of the one-room districts are employed, and that great inequalities in our rural schools are found inside the same county. Such differences in abilities, regardless of the intense efforts usually made by districts low in ability, result in great differences in educational opportunities of the children. Thus, as a rule the poor district must be content with a building that at best is only fair, with a teacher that is not well-trained, with a short term of school each year, and with poor equipment and supplies both for the teacher and the pupils.

On the other hand, the wealthy district has as a rule a longer term, a teacher with better training and perhaps of more experience, better equipment, and a building more comfortable and pleasant to work in. The extremes which exist in our one-room schools should not be permitted to continue.

The determination of causes might well precede the suggestion of remedies. Why do these great extremes in ability exist? That geographical differences help to account for wide variations in valuations is of course true. Yet the state in order to provide for its own future

Fig. V -- Equalized assessed valuations of middle districts



welfare must see to it that geographical limitations do not—must not—handicap its future citizens in the securing of a good common school education; the State must see that its future electorate is well-trained in the interpretation, the understanding, and the solution of the social and economic questions thrown out for decision before democracy's jury—all men and women.

Many of the preceding statements are but illustrations of the general truth that the forms of wealth have changed much since the small school districts were laid out years ago (decades, in fact), and that the extremes now found in the abilities of districts are to some considerable extent due to the failure to readjust district boundaries, as well as the revenue system, to a progressive industrial and economic society.

A revenue system ill-adapted to serve society best must not, however, stand as an excuse against the progress of an educational system. The equalizing of educational opportunities and of inequalities now existing in tax burdens borne by some of the forms of wealth are to be

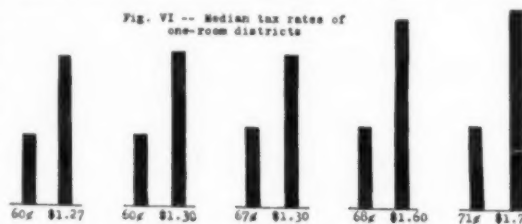


Fig. VI -- Median tax rates of one-room districts

worked out in harmony rather than in conflict. Progress in the solution of either problem, if done along lines adapted to the needs of a modern society, should bring beneficial aid in the solution of the other problem.

A larger state distributive fund, apportioned according to needs, would help in equalizing opportunities for our children and would be a forward step in the solution of our problems. A larger unit, perhaps the county unit, even if used as a basis of only partial support, would likewise bring improvement. Consolidation of districts where local conditions justify the same should be encouraged. Spreading at least most of the tax yielded by such public-service forms of wealth as railroads would bring forth better conditions. The discontinuance of small weak districts would no doubt be worthy of consideration, although we must remember that local geography is such that the use of some of the small, isolated buildings must be continued. The whole problem of equalizing educational opportunities is one that demands much investigation, serious consideration, and a willingness to try reforms that promise improvement.

—One of the addresses before the grammar section of the Illinois teachers' association was entitled: "Miss Snappy and Average Joe." Then the rural section adopted a much snappier title which read: "Leading the Calf—A Study of Method in Disciplining." Titles like these certainly ought to take the monotony out of educational gatherings.



Look for the "Raised-Rim" Top

Sani-Onyx – Sani-Metal for Beauty – Sanitation – Permanence

MANY institutions, realizing the necessity of a cafeteria, have made the unfortunate mistake of purchasing and installing temporary food and drink equipment. Failure to investigate *permanent* equipment that does not require constant repairing and refinishing, has cost many institutions the price of a good, substantial installation.

The Sani Products Company have set the pace for substantial, permanent and sanitary equipment — the kind that will look just as well ten years later as the day it was installed. Snow white *Sani-Onyx* table tops are not spotted or stained by fruit juices or other liquids. Simply wiping with a damp cloth, keeps them clean and inviting. *Sani-Onyx* table tops have a "raised-rim" (an exclusive patented

feature) which prevents spilled liquids from dripping on the floor or clothing.

We have solved the problem of refinishing and replacing wood table bases by furnishing *Sani-Metal* Porcelain Enamel. You need not worry about injuring this sturdy material with wet brooms and mops. *Sani-Metal* bases can be secured in white, brown, mahogany and grey color. It will pay you to install permanent equipment.

Write to the nearest fixture supply house or this office for catalog and full information on the *Sani* line of food and drink equipment. Send a diagram of your floor space and we will make a blue print lay-out of a complete installation free of charge.

Sani Products Co.

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"A Decided Improvement and Good Investment"

—Charles Schwartz
of The Rittenhouse



The Rittenhouse Installation of Vulcan Economy Hot-Top Ranges.

Mr. Charles Schwartz, Chief Steward of The Rittenhouse, wrote the following letter about the Vulcan equipment installed in the kitchen of The Rittenhouse, Philadelphia (pictured above) to Wm. Thompson, of Philadelphia, who made the installation:

"On July 2d, 1923, we installed in our kitchen five (5) sections of your Vulcan Economy Hot-Top gas ranges.

"As to cleanliness, efficiency, economical fuel, labor and up-keep expense they are a decided improvement and good investment over coal burners.

"I am writing these lines in appreciation of the merit due said ranges."

"Cutting Cooking Costs" is the title of a book of facts which every chef and manager needs to know about, for the sake of maximum economy. A request on your letter-head will bring a copy free.

Write for Catalog.

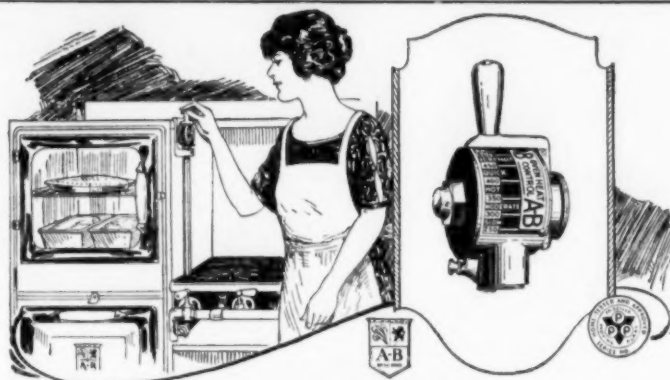
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—and Equipment—

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Perfect control of oven temperature is one of the most important requirements of a gas range in modern classroom work. The A-B Oven Heat Control, as used on the A-B Gas Range, provides the means for accurately regulating the gas flow to maintain absolute uniformity of oven heat at any desired temperature for cooking or baking. Yet this is only one of the many features which have made the A-B Gas Range the popular choice of so many of the country's foremost vocational schools and domestic science training classes.

PLANS and other interesting booklets may be had upon request. Write for them.

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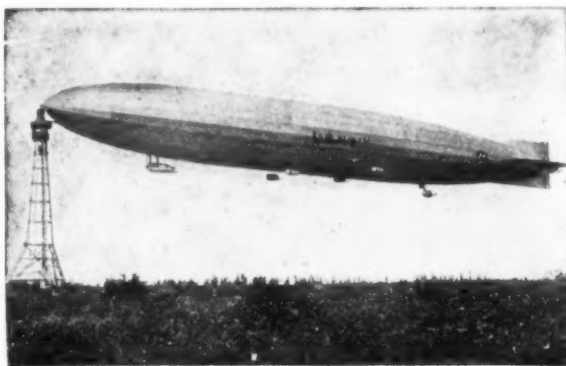
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Two Factories

Battle Creek, Mich., and Los Angeles, Calif.

A-B Gas Ranges

Recognized Everywhere As America's Best



The U. S. Navy Dirigible—"Shenandoah"

EQUIPPED BY DOUGHERTY!

NOW THAT THE WORLD FLIGHT IS OVER the next thing on the Navy programme is the contemplated trip of the "SHENANDOAH" to the North Pole.

The specially constructed ELECTRICAL COOKING APPARATUS installed by us, is designed to maintain a temperature of 450° in zero weather. Built of Duralumin in our laboratories. You can safely entrust YOUR scientific problems to a House selected by the Government without competition.

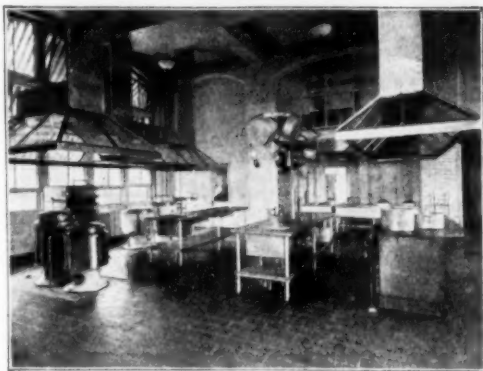


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Van Installation for the Preparation and Serving of Food again selected because of its superiority.

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Consult us without the least obligation on your part. A letter today will help you with your food problems.

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EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD
Cincinnati

BUFFALO
ATLANTA
DETROIT
PITTSBURGH
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SCHOOL BUILDING NEWS

OAKLAND CARRIES BOND ISSUE

The \$10,000,000 bond issue campaign successfully carried at Oakland, Calif., was not without bitter opposition. One of the daily papers hammered the school authorities unmercifully. It contained paragraphs like the following:

"The gang in control of the school board is working day and night to carry the bonds, for \$10,000,000 is a lot of money and the possibilities of graft are many.

"Do not be deceived. The schools built under the last bond issue show evidence of some of the wrong doing. Until a school board is in power that has at least the interests of the community and the proper training of the young, to vote \$10,000,000 in bonds will mean simply to increase the graft and leave the district with a lot of poorly built and unsafe buildings to remodel and make safe for occupancy.

"We understand that school funds are being used to spread the propaganda to 'carry the bonds.' If this information is correct the county auditor, the district attorney and those members of the School Board allowing it, will be fit subjects for removal from office.

"The time was when every crooked deal was put over with the knowledge and consent of crooked officials, even of putrid judicial misfits. It is just possible that the election officers will help steal the election. This happened at the last bond election and it may happen again, unless the neighbors get in and watch."

Evidently the people had little confidence in the spoutings of the newspaper. The election was carried seven to one. The bond issue contemplates a comprehensive school building program to cover a period of years.

THE TUCSON HIGH SCHOOL BUILDING

The new high school building at Tucson, Arizona, the finest building of its type in the

Southwest, was completed and occupied in September, at a cost of \$750,000. Plans for the building were considered in 1920, the actual construction work was begun in April, 1923, and the completed structure was occupied with the opening of the fall term of school.

The building was erected from plans outlined by Supt. C. E. Rose, which were incorporated into the building by the architect and the contractor. The building is constructed of Tucson pressed brick; the bearing walls are of concrete and steel, and the interior walls and the partitions are of Arizona hollow ware tile. The window frames are of steel. All floors, except the gymnasium, are of concrete, covered with battleship linoleum. The interior finish of the building is Spanish cedar.

In addition to classrooms, the building contains a large auditorium seating 1,238 persons, a cafeteria capable of serving 350 students, and a small lunchroom seating 108 students, a library 60 by 30 feet in size, a gymnasium 180 feet by 40 feet and capable of seating 1,000 persons, two study rooms and four laboratories.

The building is heated by a hot-air plenum type system, using crude oil fuel in cast iron furnaces. There are twelve furnaces, comprising three batteries of four units each, together with air washers and automatic temperature regulation.

The building was planned by Architect Roy Place, of Tucson, and was erected by the contracting firm of E. C. English & Co., Los Angeles, Calif.

BUILDING AND FINANCE

—The Pottsville, Penna., board of education renewed its decision that the new high school site question should not become a part of the \$500,000 bond issue election. The board believes that the bonds should be voted first and the site question settled later.

The board of education was authorized to issue bonds for \$275,000 for a new high school site of ten and one-half acres. The Withington heirs donated a part of the site and the balance was purchased for \$210,000. The sale of the bonds netted \$3,407 in premiums, thus enabling the board to save \$68,407 on the transaction.

—Four years ago, Bossier Parish in Louisiana had four state approved high schools, all frame buildings. Since that time, three have dispensed with frame buildings and erected

modern brick buildings. Haughton will soon discard its frame building and erect a modern brick structure. A frame building erected three years ago, in the open country, has now become a state approved high school. It has an enrollment of 150 students who are transported to the school in trucks. A total of 27 trucks and five wagons are used to carry the children to and from the high schools of the parish.

—Miss Margaret Haley of the Chicago Teachers' Federation maintains that the proposed platoon system is a subterfuge to cover up the taxation deficiencies of that city. She claims that the state of Illinois has forty billion dollars of which only four billion are subjected to taxation.

—Five one-room schoolhouses were sold at public auction in the Pleasant and Walnut townships, Pennsylvania, recently. The consolidated school at Pleasantville with busses operated by the school board renders the several one-room schools unnecessary.

—The Pottsville, Pa., school board has decided to ask the public to vote on a \$500,000 bond issue for a new high school building.

—On the ground that the expense would be very great and would add to the cost of school construction, the New York City board of education has asked the board of aldermen to amend the code of ordinances to exempt public schools from the requirements relating to standpipe installation. The request was made at the suggestion of Superintendent of Buildings William H. Gompert.

—The tax dollar raised in New Jersey is spent as follows: State, 12 cents; county, 17 cents; municipality, 38.6 cents; education, state and local use, 31.8 cents. The dollar which goes to education, expressed in cents, is expended as follows: teachers' salaries, 57.3; operation and maintenance, 12.6; debt service, 11.6; state schools, 3.1; P. and A. fund, 2.8; local administration, 2.5; miscellaneous, 5.7.

—The board of education of Shaker Heights, Ohio, submitted a bond issue of \$650,000 at the November election. It is planned to use the proceeds of this issue as follows: Addition to Boulevard School, \$185,000; furnishing and equipping same, \$15,000; new building at Moreland-Lee, \$400,000; furniture and equipment for same, \$25,000; interest for sinking fund, \$25,000.

B



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with the standardized L. B. Charging desk

The focal point of school library service is the charging desk. Here the students form their impression of the efficiency and service of the library. And here, particularly, time and temper-saving equipment is essential.

Library Bureau charging desks are the result of many years of library experience. Every single detail down to the drawer extension slides is planned to aid the librarian and to facilitate service to the students.

Library Bureau has standardized several types of charging desks which meet usual school library requirements. The desk illustrated is of unit construction. Additional units can be quickly added to it as the growth of your school library requires.

For further details of L. B. Charging desks and convincing proof of their quality, as testified by librarians the country over, get in touch with the nearest library division listed below.

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Salesrooms in leading cities in the United States, Great Britain and France

Standard L.B. school library equipment in quartered oak

Card catalog cases
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Exhibition cases
Bulletin boards
Lantern slide cases

School library supplies

Administrative school records and files for superintendents, principals, department heads, secretaries, etc.

Write for catalogs and information

—The board of education of Fort Collins, Colo., has purchased two school sites, each consisting of a whole block, in anticipation of a future need. The action is highly commended by the local press.

—William B. Ittner, the schoolhouse expert, was engaged by the Columbus, Ohio, board of education to serve as consulting architect for the new high school now under construction. When a representative appeared at one of the board conferences it was decided that Mr. Ittner must appear in person.

—The action of the Indianapolis, Ind., board of education to increase the tax rate from 93.5 to \$1.04 on each \$100 of taxable property has been vetoed by the state tax board. The school board has asked for a rehearing. The tax board holds that the extra funds required should be secured by a bond issue.

—The Saint Joseph, Mo., News Press recently printed in full, covering a half page, the financial report of the school district. The reasons for the publication was the fact that the manner of presentation is an innovation introduced by Kenneth Robinson, vice-president of the board and perfected by A. L. Loving, the board's business manager. "Instead of a mass of figures with a brief professional commentary intelligible only to an experienced committee or directorate, it gives, in addition to the customary complete and detailed tabular exhibits, a narrative explanation which may be read with interest and understanding by laymen," is the explanation given by Mr. Loving. "It has, where public funds are concerned, the great advantage of being such interesting reading that newspapers are glad to reproduce it practically in full, instead of making brief comment upon items of their own selection from the large tabular exhibits, which, as in the present instance, they never attempt to reproduce."

—An eight-room school has been erected on a seven acre site adjoining the high school at Champaign, Ill. The construction of the building is such that another story may be added when needed.

—The Lyons, Ill., board of education is building a \$35,000 addition to the Lincoln School at South Brookfield.

—State Superintendent John Callahan has made a survey of the school support situation

in Wisconsin. He notes that the wealth of counties varies from six million to one billion dollars. In like manner he finds school districts whose assessed valuation is less than \$50,000 while many others are assessed in excess of \$1,000,000. The amount available for state distribution in 1922 was \$3,656,049 providing a per capita of \$3.75 for every child of school age.

—"Overcrowded schools cannot be permitted to continue. The city is recreant in its duty if sufficient schools are not provided. There is scarcely any dispute about this, yet—" So reports the Herald of New Britain, Conn., and then philosophically adds: "New schools, a sufficient number to take care of pupils now on part time and fulfill the needs of the near future, will cost the city approximately \$700,000, according to estimates made at a conference in the mayor's office. It looks like a lot of money. Verily, educating the young comes high; but they've got to be educated!"

—The Little Rock, Ark., school board has decided to build a million dollar high school. It is proposed to send a committee, accompanied by an architect, to inspect high schools in other cities before beginning plans.

—The Omaha, Neb., board of education is asking for a \$2,000,000 bond issue to spend for new schools. The teachers' committee recommends that most of the money be spent for grade schools. The local chamber of commerce and real estate board concur in that recommendation. This will give preference to grade schools over junior and senior high schools.

—Philadelphia's \$80,000,000 school building program has made some progress. The number of part-time children has been reduced from 40,000 to 23,000. Besides, the full-time children are on the whole better housed than ever before.

—William H. Gompert, who has charge of New York City's school building operations, has been authorized by the board of education to visit, for the purpose of making studies in school architecture, the cities of Cleveland, Detroit, Chicago, Saint Louis, Cincinnati, and Pittsburgh.

—Highland Park, Michigan. A new addition to the Ferris elementary school at Highland Park, was completed ready for occupancy September second. Besides fourteen regular classrooms, the new addition contains an auditorium,

a double gymnasium, and a swimming pool. The rooms for the primary classes are of the "unit" type, consisting of groups of one large and two small rooms intended to be used as a unit.

On September 24th a new field house was opened on the Highland Park school athletic field. The new structure is about the most complete in Michigan. It contains showers, dressing rooms, toilets, and lockers for the visiting teams as well as for the home teams. A large lobby or instruction room is a prominent feature. The building also contains conveniences for the general public.

—Bids were received on September 18th for the completion and expansion of three high schools at Birmingham, Ala. These were the first bids to be asked for in connection with a building program involving a cost of \$3,500,000. Plans for the construction of a number of elementary schools and for the expansion of several existing buildings are under way. It is expected that the immediate program will be completed in 1926.

—Plymouth, Ia. During the past year the last outstanding bond was paid and the school system is now out of debt. It has been possible to reduce the mill levy from 82 to 48 mills for the coming year.

—The Bloomer Junior High School, at Council Bluffs, Ia., has been completed at a cost of \$275,000. The Bloomer School is a three-story, fireproof building having accommodations for 900 students. In addition, the board has under construction two fireproof grade schools, one to cost \$60,000 and the other \$40,000.

—Danville, Ill. A new high school was dedicated on September 19th. The building and equipment cost over a million dollars. Adjoining the building on the east, there is an athletic field. Suitable landscaping has been provided as a means of beautifying the surroundings of the building.

—At East Chicago, Ind., two new buildings are nearing completion. The Washington auditorium-gymnasium, adjoining the high school, has a seating capacity of 1,600 persons and cost, excluding equipment, \$420,000.

The Roosevelt junior high school is located on a fourteen-acre site and provides accommodation for 1,200 pupils.

(Continued on Page 87)

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Superior

LABORATORY FURNITURE

Another Big Year

1924 has been a big year educationally, and a big year for Kewaunee.

More business — more installations — more schools properly equipped for real student progress.

The tremendous increase in the number of better-looking school buildings in recent years has had its logical effect in stimulating the demand for better equipment inside—especially when, as in the case of Kewaunee, proper Laboratory Furniture costs no more.

Have You Seen the Kewaunee Book?

The most complete book of this industry, we believe, illustrating our entire line, some of the desks in natural colors. It will be sent without charge, prepaid, to any instructor or official who replies, giving his position and using the stationery of the institution. Address all inquiries to the factory at Kewaunee.

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No. 1949

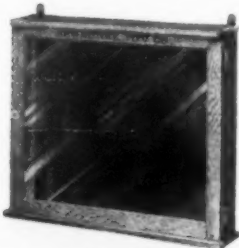
DOUBLE MANUAL TRAINING BENCH
Ideal for the conservation of floor space, as it accommodates 12 students. Very sturdily built and has an unusually fine appearance.



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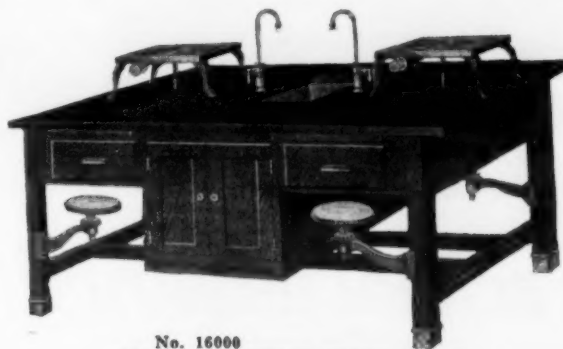
COMBINATION PHYSICS AND CHEMISTRY TABLE

This design is practical for use as a student's desk or in a private laboratory. Has two larger and eight smaller drawers and four cupboards. Very solidly constructed and finely finished.



No. 1514

BULLETIN BOARD
with door. For posting special reports, notices of meetings, etc.



No. 16000

DOMESTIC SCIENCE GROUP TABLE

This table is a very desirable addition to the Domestic Science Equipment. It embraces every feature that is necessary in a Domestic Science Table. Will accommodate four students at one time.



No. 1006

STUDENTS' BIOLOGY LABORATORY TABLE

Where a complete work-table is desired, this will fill the need admirably.



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Supply Case

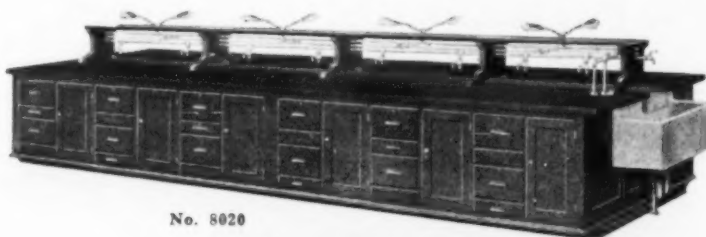
A very practical case. The two sliding Hyloplate doors make a very fine blackboard.



No. 1302

ELECTRICAL DESK

Accommodates 8 students working in sections of four. Each student has one small drawer exclusively. The top tier of drawers and the cupboards are used in common. A two-gang set of Hubbell polarized plugs and receptacles is placed at each end of desk.



No. 8020

CHEMICAL DESK

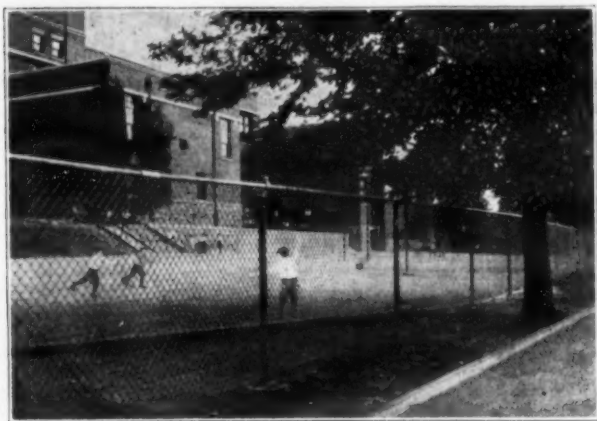
This design contains two features not to be overlooked. The electric light attachments are new. The small drawers extending through the entire table provide storage room for long condensing tubes and other equipment. This desk will accommodate twenty-four students working in groups of eight.

Fence Helps

in school administration

A Page relieves the minds of teachers—breeds orderliness and promptness in pupils—insures child safety at play.

Give your administration of schools and school property the benefit of Page Protection.



A Page Fence protects pupils and property at the Baneroft School, in Kansas City.

Lasting Protection at Moderate Cost

The Improved Super-Heavy Zinc Coat that covers Page Wire Link Fabric makes Page Fence the last word in economical property protection. Flexibility makes it the ideal playground fence—more effective than many fences that cost far more. There is a Page erecting organization near you that will give your school fence special attention—furnish you with plans and estimates without obligation.

Write for address of nearest distributor and the Page Fence Book, showing typical school installations.

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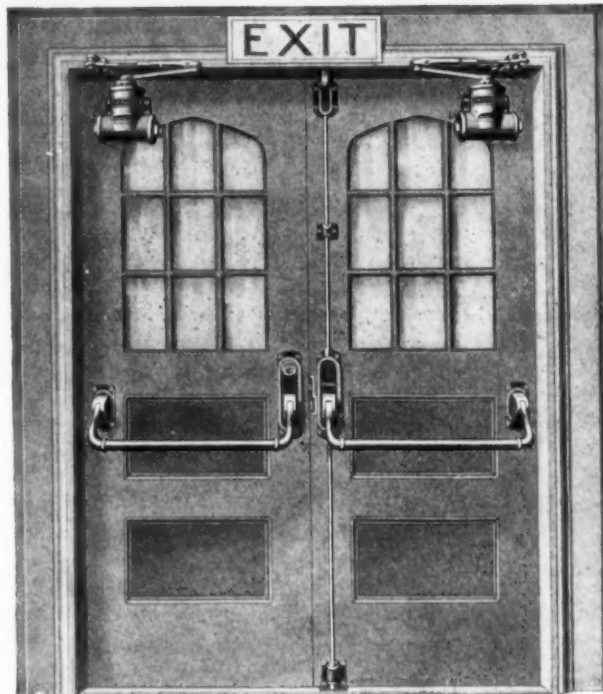


PAGE

PROTECTION FENCE



Safety in Schools



School officials, who are responsible for the protection of the lives of the pupils and are anxious to make proper provision for quick exit in case of fire or panic, will find in

SARGENT

Fire Exit Door Bolts

an adequate equipment which meets all conditions. The Sargent Cylinder Locks with which they are fitted provide for complete security and prevent entrance from the outside of the building when school is not in session, while they can be arranged to permit entrance during school hours, if desired.

Quick Exit at All Times

is provided and in case of necessity the doors can be instantly opened by slight pressure on the handle bars at any point.

Door Checks

close the doors, during their day by day use, quickly and quietly, the application shown in the illustration with the Sargent special foot (No. 35) being particularly desirable.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

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DAHLSTROM
FIRE EXIT DOORS
in the
ANDREWS SCHOOL
Pittsburgh, Pa.

An annual fire loss of about \$500,000,000.00 points to the necessity for greater enlightenment on the subject of fire-hazards.

Dahlstrom Steel Doors and Trim installed in school buildings will not only furnish protection to the pupils but will also serve to teach them the best means of combating the fire waste.

Write us for full information on this important subject.

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NEW YORK
25 Broadway

DETROIT
1331 Dime Bank Bldg.

CHICAGO
19 So. La Salle St.

Local Representatives in Principal Cities.



(Continued from Page 84)

dations for 1,000 pupils. Both buildings are to be completed ready for the second semester.

—The new high school auditorium at Center-ville, Ia., now nearing completion, was dedicated in November. The auditorium seats over 900 persons and is equipped with a large and completely furnished stage.

—Havre, Mont. The trustees of District 16 have appointed a committee to work out building plans for the next five years. Additional buildings are needed to take care of increasing school population.

—Cleveland, O. The school plant at present consists of 131 school buildings. With the completion of the Jefferson junior high, and including two portables, the total will be 134.

—An auditorium-gymnasium was dedicated at Norton, Kansas, in October. A dedicatory program was carried out. Pres. T. W. Butcher of the State Teachers' College delivered the principal address of the occasion.

—The school building of District 13, Bernalillo County, N. Mex., have been brought up to a high standard by improvements made possible through a \$70,000 bond issue voted last spring. Such schools as Old Town, Duranes, North Fourth Street and Santa Barbara all have high class modern buildings, putting to shame those in many of the larger cities of the country. The North Fourth Street School, the largest rural school in the state and in the entire southwest, has sixteen teachers and sixteen classrooms. Its enrollment is estimated at 510 pupils.

—Pekin, Ill. The rapid growth of the city has resulted in overcrowding in the schools. The first of last April a modern, eight-room school was built, and in November a six-room addition was completed at the Jefferson school. Contracts have been awarded for the erection of a twelve-room school on the Douglas grounds. This building will be one of the most modern in the state and will be completed ready for occupancy in September, 1925.

—The school board of Norfolk, Neb., has retired the 1914 issue of twenty-year bonds, amounting to \$47,000. Of this amount, \$23,000 was appropriated from the general fund and the balance from the sinking fund. While Norfolk is probably one of the heaviest bonded districts

in the state based on valuation, it will be able to meet the entire bonded indebtedness at maturity, with very little additional tax and without curtailing the present school program. The present school levy is \$208,000, with district valuation of \$10,520,290 and a school enrollment of 2,075.

—A new high school was dedicated in Butler District, Hancock County, W. Va., on November 7th. The building was open for inspection during the entire day and a special program was given in the evening. State Supt. G. M. Ford, delivered the principal address on this occasion.

—Hinsdale, Ill. An elementary school building is being erected at a cost of \$135,000. The building is to be a modified type of the platoon elementary school conducted at Des Moines, Ia. Messrs. Childs & Smith are the architects.

—Venice, Ill., has a new high school which is entirely modern and accommodates 175 students. At present, it enrolls 54 pupils and meets the standards of the North Central Association of Secondary Schools.

—Galesburg, Ill. The school board has completed a survey of the school plant relative to insurance conditions. The board has adopted the recommendations of its engineers and will insure all the buildings under the eighty per cent plan, with one rate for all buildings in the city.

The Douglas school, recently completed by the contractors, has been turned over to the board for immediate use. The building has a large gymnasium and kitchens and will serve as a community center for the people of the section.

—Lawrenceville, Ill. A fireproof grade school has just been completed. The building provides 280 sittings for seventh and eighth grades and a large stage seating 1,000 persons. Under the new plan, each grade is divided according to ability into small sections of 20 or 25 pupils each. Under the plan, normal pupils do the work of the school year, accelerated ones more work, and retarded pupils less work.

—Rockford, Ill. A modern gymnasium has been completed for one of the grade schools. A twelve-room elementary school to be named the Herman Hallstrom School, will be completed in January, 1925. The Roosevelt Junior High School, occupied in September last, has an enrollment of 1,200 students. Plans have been begun for another junior high school to be erected

on the east side and to have a capacity of 1,800 pupils.

—Alexander, Ind. A new high school building will be ready for occupancy at the beginning of the second semester. In addition to nine classrooms, the building contains a large assembly room and a gymnasium.

—Alton, Ill., will erect a senior high school for which bonds have been voted by the citizens.

—Construction work has been begun on the Franklin School at Wakefield, Mass., to cost about \$125,000. A contract has been let for the erection of the Enfield High School, which will cost \$244,000.

—Stratford, Conn. Construction work has been begun on the Stratford High School, to be erected at a cost of about \$164,640.

—The new Bulkeley School at Hartford, Conn., will be erected at a cost of about \$1,444,000. The school plant includes separate buildings for the boiler house, gymnasium, academic building, auditorium and shops.

—Milwaukee, Wis. An epoch in the history of education in Milwaukee has occurred in the granting of \$700,000 by direct taxation for the erection of schools. This places the responsibility upon the board to meet obligations imposed by immediately using every available means for erecting school buildings.

With the employment of a full-time architect since September 15th, it is expected that there will be no delay as in the past in the preparation of plans and specifications. It seems reasonable to avoid delays in the work by using plans of schools lately built, with slight modifications as may be considered necessary for the location. It is possible that a policy as to size of auditoriums in elementary schools will be adopted. Some auditoriums in the past have proven too large and expensive and future plans call for smaller rooms of this type.

—Burley, Ida. A new grade school now in process of construction, will be occupied on December first. The electrical heating system in the high school has been replaced by a steam heating system, which is less expensive and more satisfactory.

Under the direction of the superintendent, a pupil housekeeping plan has been inaugurated with the idea of insuring neatness in classrooms. Pupils are held responsible for the general ap-

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pearance of the rooms, including the condition of floors, blackboards, desks, book shelves, chalk trays and other parts of the equipment.

—The local community at Bridgeton, Ind., recently suffered the loss of two school buildings by fire. The new high school building was burned on the night of September 28th and the other school was burned on October 26th, just four weeks later. An article descriptive of these buildings was published in the Journal for May, 1921.

—The Little Rock, Ark., board of education has decided to begin at once the construction of the new \$1,000,000 high school. The proposed building will be one of the finest in the South. Before the plans are drawn, a committee from the school board, accompanied by the architect, will visit high schools in various parts of the country, in order that the new Little Rock High School may meet the most modern standards in school construction.

—The new high school just completed at Wichita, Kansas, was originally estimated to cost \$1,200,000. After all bills were paid it developed that the building cost exactly \$1,109,753.70.

—Hominy, Oklahoma, is completing a \$75,000 high school. The city has a population of 5,000. It is quite progressive and is located in the famous Osage county. Its budget this year is \$95,000.

—The New York schools will be enlarged by 26,858 seats to be ready for the February term. For years the board of education has been seeking a way to reduce the delays due to the requirement of law that separate contracts must be let for plumbing, heating, etc. The division of responsibility among a number of separate contracts has caused annoyance and conflict. General construction contractors have excused slow work upon the plea that necessary equipment had not been installed. In an effort to meet this situation the building bureau has advanced the time for advertising equipment contracts so that all bids for the complete structure and equipment will be opened at the same time. Then the contractors will know with whom they have to deal and the bureau can see to it that they cooperate to speed construction.

—It is reported the school board of Jamestown, N. Y., is "broke." The city council has

for three months persistently refused to levy the school tax. An appeal to the courts to compel the city council to levy the tax is pending. Local bankers have extended loans to aid in the emergency.

—Webster Groves, a suburb of St. Louis, Mo., has under construction a \$400,000 senior high school. When the building is completed the present high school will be used for a junior high school. William A. Gore is the superintendent of schools.

"Everyone who thinks on public taxation understands that the ratio of the annual expenditures of an individual to his annual income tells a very definite story concerning the solvency of such individuals," said F. G. Blair, state superintendent of Illinois, recently. "There are those who have stated publicly that Illinois is spending relatively too much of her income for public education. What does this nation wide survey reveal on this point? While Illinois ranks ninth among the 48 states in its per capita income, it ranks 34th among the states in the percentage of its income expended on public education. Illinois spends less of its annual income for public education than any other of the middle western states.

—The board of education of Spokane, Washington, has trimmed down its school budget by \$25,945. The following cuts are significant of the general paring down:

Superintendent of schools, other expense, from \$2,000 to \$1,600.

Supervisors' salaries, other expense, from \$2,000 to \$1,650.

Teachers' salaries from \$1,155,000 to \$1,135,000.

School supplies from \$30,250 to \$28,250.

Teachers' transportation from \$1,100 to \$1,000.

Salary of custodians and others from \$123,150 to \$118,350.

These cuts reduce the budget for the year to \$1,792,925, as against budget of \$1,884,678.77 for the year previous and \$1,799,022.70 for the school year ended June 30, 1923.

—The board of education of Washington, D. C., has planned a five-year building program and bills to that effect will be presented to the next Congress.

—The Portland, Oregon, school budget for 1925 calls for \$4,262,870.51. This represents an

increase of \$416,895 over the previous year.

—In line with a recommendation made by Superintendent John C. Diehl, the Erie, Pa., board of education decided to construct a new junior high school at a cost of \$750,000.

—The Springfield, Mo., board of education sold \$150,000 worth of school bonds receiving a premium of \$7,675. The bonds are issued in four equal maturities of 5, 10, 15 and 20 years respectively.

—New Britain, Conn., made an appropriation of \$700,000 for new school buildings. This was agreed upon between Chairman Edward F. Hall of the school board, Superintendent S. H. Holmes, and the mayor.

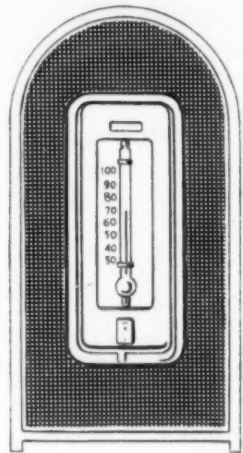
—At Seattle, Washington, the per capita school costs have been reduced from \$91.06 to \$90.49. A detailed analysis of the attendance and cost records shows the greatest reduction was in high school costs. For the year covered by the report the per capital high school cost was reduced from \$125.22 to \$120.26, a saving of \$4.96 per capita. The grade school costs showed a reduction from \$85.79 to \$85.51, and the parental school costs were cut from \$345.71 to \$334.90.

—At a superintendents' meeting held at Albany, N. Y., Dr. Frank P. Graves, state commissioner of education, pointed out the school finance question will have to receive attention at the hands of the legislature. Rural districts are hardest hit by the lack of sufficient funds, the educators declare, but now many of the larger cities, although they have splendid facilities, are finding increasing difficulty in financing them because of the two per cent tax limit for school purposes in all cities of more than 1000,000 population. Utica and Schenectady will soon be facing this problem, it is believed because they are about to be declared in the 100,000 class.

—The new school on Walnut Hill Street, Boston, has been named the Charles Logue School in honor of Charles Logue who served for ten years as a member of the board of education. Another new school is to be named the Thomas Francis Leen school after a member of the board who died a few years ago.

—Springfield, Mo. The school board has disposed of \$150,000 in school bonds recently voted

(Continued on Page 91)



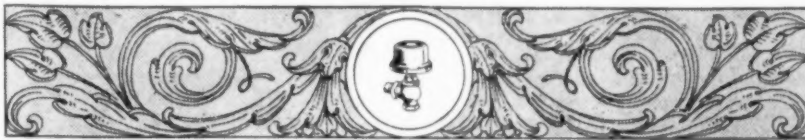
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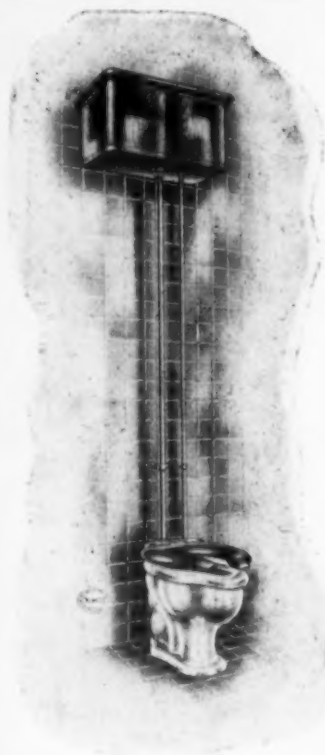
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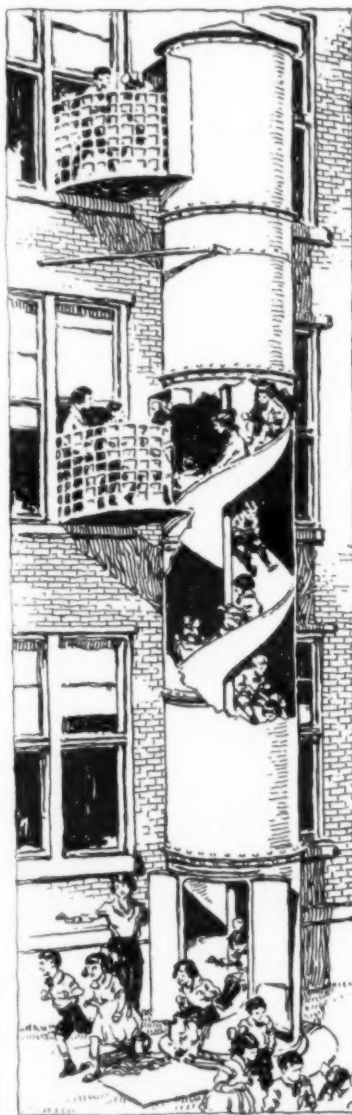
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Sherrard School	Detroit, Mich.
Lawrence High School	Lawrence, Kansas
Lincoln Branch School	St. Louis, Mo.
Greenfield School,	Greenfield, Ohio



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(Continued from Page 88)

at a school election. The bonds which brought a premium of \$7,675 are to be used in the completion of the Pipkin junior high school. The bonds bear the date of November 1, 1924, and are issued in four equal maturities of five, ten, fifteen and twenty years respectively.

—Oakland, Calif. The board of education has asked the board of supervisors for permission to sell \$1,000,000 in bonds under the \$9,600,000 issue, to expedite the purchase of school sites before land values rise out of reach.

The first construction work in connection with the bond issue will be the rebuilding of the Cole and Garfield schools which were recently damaged by fire.

—Little Rock, Ark. The school board has completed plans looking toward the erection of the first unit of a high school to cost not less than \$1,000,000. The board will proceed immediately with the selection of an architect and with plans for the calling of a bond issue election to cover the cost of the site, building and equipment.

—New Britain, Conn. The school board has estimated that approximately \$700,000 must be raised shortly to provide adequately for immediate school needs. On this amount, approximately \$500,000 will be used for the erection of a sixteen-room school in the Monroe section and another in the Lincoln section. The East Street section will need \$190,000 to cover its needs for accommodations.

—Marysville, O. The board of education of York township, Union County, voted in October, to close the schools indefinitely because of a lack of funds. The board announced it was without funds and had no prospects of getting any until February.

—Reading, Pa. The school board has intimated that a policy of strict economy will be practiced in the carrying out of its program for building the high school, the grade schools, and the museum. The board has concentrated its efforts on speeding up the program so that the buildings will be ready within one or two years, thus relieving the present congestion in graded and high schools.

—The corner stone of the new high school at Edinburg, Ind., was laid on October 15th, with simple ceremonies.

—Alexandria, Minn. A school tax reduction of

four mills is predicted by Supt. H. B. Gough. The budget for the year has been reduced by \$7,000, bringing down the estimated amount from \$52,000 to \$45,000.

—The school board of Hamilton, O., has asked for an extra tax levy of 2.18 mills for current expenses for the period of one year.

—Increased expenditures for improvement of the elementary school system of Philadelphia have been recommended by Supt. E. C. Broome, in his annual report to the board. Because of the difficulty of securing unimproved property in congested districts where schools are needed, Supt. Broome suggests the development of a type of school which may be placed on a narrow lot and be readily convertible into an industrial or commercial building, if the school population later shifts to another section, making it desirable to close the school.

—Mayor Walrath of Syracuse, N. Y., has denied the building funds asked for by the board of education on the ground that the board's demands for additions are excessive. The Mayor insists that the board follow a program laid out by a special committee appointed to make a survey of the school situation.

—Camas, Wash. The voters recently approved an extra ten-mill levy for school purposes.

—That school costs at Seattle, Wash., are gradually being reduced was emphasized in a recent statement issued by Lou Staude, comptroller. For the year ending June, 1924, the per capita cost of educating pupils in the schools has been reduced from \$91.61 to \$90.49, a difference of \$1.12 for each pupil. With an average attendance during the year of 47,743, the per capita reduction means a total saving of \$53,472. The greatest reduction was in high school costs, where the per capita cost was reduced from \$125.22 to \$120.26, a saving of \$4.96 per capita. Grade school costs showed a reduction from \$85.79 to \$85.51. The reductions in cost have been attributed to close supervision on the part of the school directors, increased efficiency of the organization, and the hearty cooperation of the teachers and administrative department.

—Contentions between the school board of Tacoma, Wash., and local building inspectors, covering a period of several points, came to a head in October, when the board appeared before the city council asking that the building

code be changed to allow lower load factors in construction work. The board contends that it cannot build schools if it is required to maintain the present high requirements of the city building code. Mr. S. C. Ericksen, a contractor and a member of the board, holds that the code requirements are too high.

The office of the building inspector takes the stand that until the committee which passed on the code agrees that the requirements are too high, it is not possible to make a change. The school board has consented to obtain the committee's approval of changes in the code looking toward a modification of the same.

—Redding, Calif. A recent inspection of school buildings by the local fire chief during fire prevention week revealed some serious defects in fire protection facilities. In one school the fire escape was too steep, making it more like a ladder; in one school, the doors were kept locked or bolted to keep out the children; in one school the door leading to the fire escape opened inward in violation of the law; under one fire escape there was a pile of lumber, preventing the use of a swinging ladder and making the fire escape useless in an emergency; at one school there was no fire alarm and no fire drills. The findings of the fire chief were reported to the school board for correction.

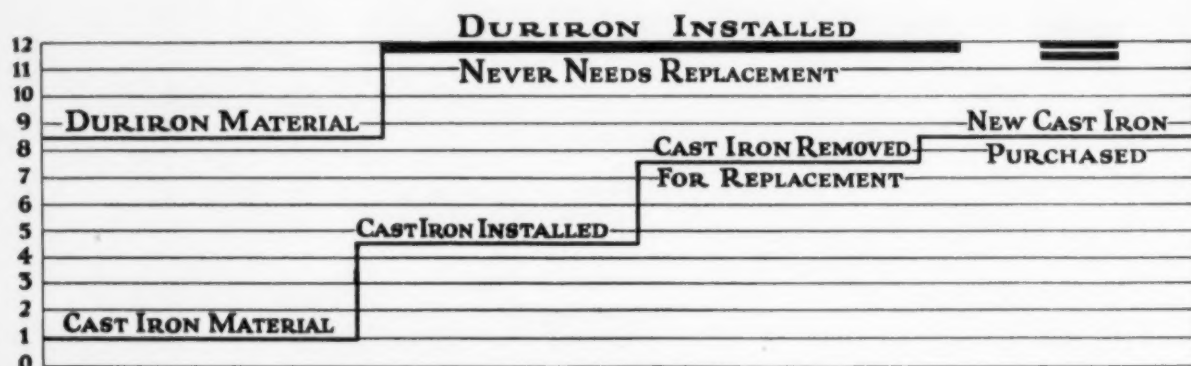
—Spokane, Wash. A further reduction of thirty-one-hundredths of a mill has been made in the school tax levy for the next year, reducing the amount of the budget by \$25,945. The total levy for the schools this year is 14.2 mills, as against 15.75 mills last year.

—Eau Claire, Wis. An election was held on November 4th to determine whether the city should be bonded for \$500,000 for the erection of a senior high school. The plans call for the remodeling of the present high school into a junior high school, at an estimated cost of \$50,000, and the erection of a new senior high school, to be completed for the fall opening in September, 1926.

—The Dayton tax rate will remain at \$1.98, as fixed by the county budget commission of Montgomery County, O., despite action looking toward an increase in the amount. The commission pointed out that under the ten-mill limitation there is no way of obtaining more funds from the tax budget. Since the limit has been reached and the funds apportioned in accordance

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with law, the only recourse for the city is to look to its other sources of income for relief.

—Indianapolis, Ind. A petition for a rehearing on the school tax levy for 1924-1925, fixed by the board at \$1.04, and reduced by the state tax commission to \$0.935, has been filed with the tax board by the counsel for the Indianapolis schools. The board members are confident that if given an opportunity, facts could be shown proving that the levy for school purposes should not be less than \$0.96.

—Burkburnett, Tex. The corner stone for the addition to the Fairview School was laid in October, with simple ceremonies. The school district was presented with a large flag by the workmen engaged in the construction work.

—Everett, Wash. The school bond levy has been raised 1.5 mills, making the present levy 7.1 mills. The levy, it is estimated, will take care of \$41,000 in principal, \$53,000 in interest, including interest on the junior high school.

—Oakland, Calif. The school board has recently issued a summary, showing in detail the character and amount of the expenditures in connection with the new \$9,600,000 building program. The program provides for two high schools, four junior high schools, one first unit building, and six additions to present buildings, making a total of 363 extra classrooms and a total capacity of 12,500 pupils.

—Lynn, Mass. Bids received for the erection of the new English high school building, to replace the burned main portion, show that the unit construction cost is approximately 25 per cent less than that for the Eastern Junior High School which was 50 per cent larger in cubical contents.

The English High School will contain 1,327,000 cubic feet and will be erected at a cost of approximately 35 cents per cubic foot. The building which is being erected by Architect G. A. Cornet, will cost about \$500,000.

—Jefferson, Wis. The corner stone of the new high school was laid on October 14th, with brief ceremonies. Bids have been received for the construction work and the building is to be completed by August, 1925.

—Chairman Jesse Earle, of the building and grounds committee of the school board, Janesville, Wis., has recently recommended that a carefully prepared program of repairs be outlined each year, by means of which all buildings

may be kept in the best possible condition, and the employment of capable janitors continued. It is pointed out that hundreds of dollars may be saved each year by improvements which can be made without added expense.

—Depere, Wis. The new grade school, now under construction has been named the Irwin School, in honor of Robert S. Irwin, the original owner of Irwin's addition.

—Rock Island, Ill. The new senior high school to be erected in the near future will in all probability provide accommodations for 1,625 students divided among three groups, comprising second, third and fourth-year students.

—Fremont, O. The school board has asked the voters to approve a bond issue of \$65,000 to pay off outstanding indebtedness and to take care of current expenses.

—Gary, Ind. School Bonds amounting to \$150,000 were recently sold for a premium of \$4,557. The bonds bear interest at a rate of 4½ per cent and mature in 1924. They are part of a \$300,000 issue authorized last spring for the completion of three schools now under construction.

—Andover, Ill. Objectors to the building of a new school, beaten in the October election, have planned legal action to hold up the school. Bids for the school have been received but no contract has been awarded.

—Upon the recommendation of Supt. J. C. Diehl, the executive committee of the school board at Erie, Pa., has asked that a junior high school be erected on the plot held by the board. The School which will be conducted as a grade and junior high school, will cost \$750,000. Upon completion, the school will release a total of 950 pupils from three graded schools.

—Birmingham, Ala. A typical building plan has been evolved for the new elementary school centers, offering accommodations for 1,000 pupils. As a means of carrying out the program expeditiously, the board has selected a number of local architectural firms to work in association with Mr. Wm. B. Ittner, architect and school specialist of St. Louis, Mo.

—Naperville, Ill. At a recent election, the voters approved a \$65,000 bond issue for the erection of an addition to the high school.

—Indianapolis, Ind. A temporary loan of \$200,000 has been obtained from a Chicago bank to tide the schools over until the tax assessment

is paid. The loan which is payable December first, is for current expenses and teachers' salaries.

—Pine Bluff, Ark. The former Central High School has been renamed the Junius Jordan High School in memory of a former superintendent. A new building now in course of erection will be known as the Woodrow Wilson High School. It will be completed in January.

SCHOOLHOUSE DEDICATIONS

—The new high school at Chester, S. C., was dedicated with appropriate ceremonies. W. H. Hand, formerly superintendent at Chester and now superintendent at Columbia, was one of the speakers. The dedicatory address was delivered by President D. B. Johnson of Winthrop College.

—Dr. Thomas E. Finegan, former state deputy commissioner of education for New York and later state superintendent of public instruction for Pennsylvania spoke at the dedication of the new Port Jervis, N. Y., high school. Dr. Finegan is now connected with National Transportation Institute.

—The new high school at Princeton, Kentucky, erected at a cost of \$110,000 was made possible by a fund subscribed by citizens. President R. E. Burton of the board of education headed the list by a \$10,000 subscription. The school will be known as the Butler High School.

—At Cincinnati, Ohio, a proposed bond issue of \$8,500,000 for school buildings is receiving support at the hands of civic bodies. The school authorities are inaugurating active propaganda to enlist public support.

—The following cities in New York have appropriated funds for new school buildings: Rochester, \$600,000; Smithtown Branch, \$260,000; Bergen and Rega District 8, \$180,000; District 12, Malverne, \$200,000; White Plains, \$875,000; Gouverneur, \$91,000; Valley Stream, \$237,000; Lynbrook, \$225,000; Albany, \$1,000,000; Canton, \$185,000; Schuylerville, \$180,000; Adams, \$60,000. At Little Falls a bond issue for \$250,000 for a high school was defeated.

—Marshalltown, Ia. The school board has adopted a levy of 103.30 mills, compared with 98.50 for the last year.

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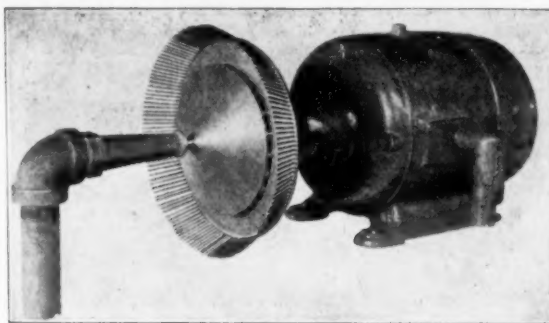
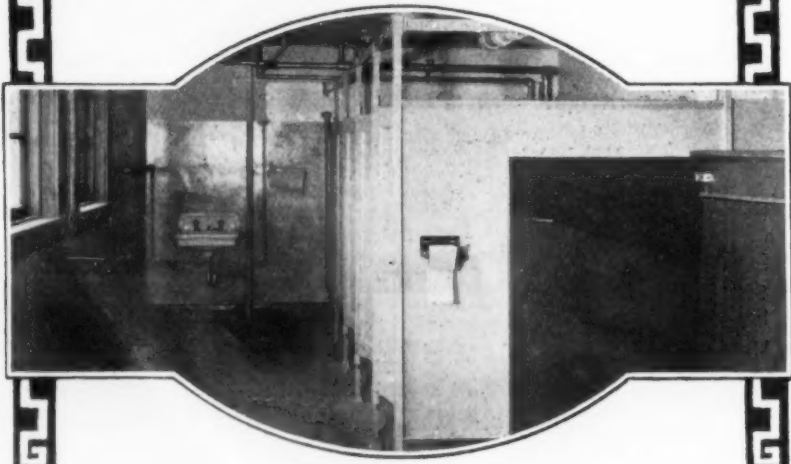
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The Type "A" Washer is installed where cleaning is the primary consideration. It uses the water over and over, and removes 98% of foreign matter from the air. Humidity may be added as desired.

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TYPE "C"—For washing without humidifying (drying).

Where clean air for drying processes must be obtained without increasing its humidity, the Type "C" Washer is installed, using a special washing emulsion.

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There are other models of the FINNELL SCRUBBER,—the right size to meet your scrubbing needs whether you have a hundred square feet or a million. Mop Trucks, too, in several models, supply clean water for every dip of the mop, every square inch of floor space.

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SCHOOL BOARD NEWS

HOW THE CANTON SCHOOL BOARD DID IT

The Canton, Ohio, board of education needed more money to run the schools, and concluded to go before the voting constituency by laying all its cards on the table.

The situation required the reapproval of a three-mill levy for running expenses and a \$1,800,000 bond issue in order to carry out a three-year building program.

In a compact circular addressed to the general public, the board stated what would happen if the first proposition failed. It would mean either a reduction of from 30 to 40 per cent in all teachers and employees' salaries or a shortening of the school term to seven or eight months, or both. More than that. It would mean the elimination of all special studies, as well as the closing of the kindergarten, evening and part-time schools.

A full explanation was then given as to the proposed expenditure of the bond issue moneys; namely, those needed in addition to the school-housing. It was shown that 1,500 children are now housed in portables, basements, and other unsuited quarters, besides 500 children being on half time. Coupled with these facts it was demonstrated that the school enrollment has increased 7,000 during the past six years.

The circular then enumerates the school building program adopted by the various cities of the country as compiled by the School Board Journal.

The front page of the announcement contains the significant notice: "If you don't read every word of this statement of conditions, you will not be playing fair with your girl, and your boy and my boy, nor with our city."

The Canton board of education consists of the following members: Jay E. Lehman, president; Edward F. Weckel, vice-president; Mrs. Logan

D. Burd, Edward D. Kirkland and Harry A. Staley. Wilson Hawkins is the superintendent of schools, A. A. Welsbacher, director of schools and W. C. Lane, clerk of the board.

AMONG BOARDS OF EDUCATION

—Superintendent Frank D. Boynton of Ithaca reported to the superintendents' council recently held at Albany, N. Y., that the state school board association was openly antagonistic to the superintendents, complaining that the school boards were mere puppets with strings pulled by the superintendents. He reported also that the several city mayors were seeking legislation whereby to supplant the school boards by city managers and thus bring the administration of the schools under municipal control.

—According to an old school board rule, the school halls of Fort Wayne, Indiana, may be used for political meetings. The rental of buildings has thus far been in the hands of the superintendent; but it is proposed to leave the decision in each case to the board.

—Mayor Dever of Chicago is reported as saying that he has great difficulty in securing the right kind of men to serve the board of education owing to the attacks made upon that body by the city council.

—At Syracuse, N. Y., the several school-houses were used for registration and polling purposes during the fall elections. The rules of the school board forbid smoking in the school buildings. The state law supports the rule.

—Owing to controversy over a boy pupil who gave the teachers considerable trouble, the school board at Dady, Ill., consisting of H. M. Anderfuhner, E. Angerman, and J. F. Minogue was asked to resign. A school election will be called to determine the difficulty.

—Ripon, Wis. The court recently issued an order directing Mrs. Otto Humbright, clerk of District No. 6, town of Ripon, to accept and file the bond of Henry Abe as treasurer of the district, a position to which he was appointed after Sherman Chaffin, elected to the position, had failed to file a bond. The court held that a vacancy did exist when the treasurer failed to file a bond during his previous terms of office, and regardless of the fact that this had been a common practice in the town and county. It is expected that there will be a general rush of treasurers to have the town clerk appoint them

in order that they may legally file a bond.

—Cleveland, Ohio. Mrs. Virginia D. Green, a member of the board of education, recently introduced a resolution directing that some individual be designated to pass upon speeches in schools during weeks of special observance. It was suggested that advance copies of speeches be given the superintendent, and that extemporaneous speakers tell what they intend to say. The action followed a complaint of a patron that a speech at one of the high schools was "partisan-plus."

—The Illinois School Board Association in making its annual announcement stated that there were 12,000 separate school districts in the state, having charge of 1,500,000 children and expending over \$100,000,000.

—Mayor Walrath of Syracuse, N. Y., urges the abolition of the school board and the schools placed under the charge of three salaried commissions.

—At a recent meeting of the Indianapolis, Indiana, board of education, three measures, one providing for free textbooks, another for a level salary scale, and still another for the platoon system, were voted down.

—The annual convention of the city, county and district superintendents of California was opened at San Francisco recently by welcoming addresses delivered by President Fred W. Dohrman and Superintendent Joseph Marr Gwinn.

—Richmond, Ind. The school board has purchased a large residence, which is to be remodeled for use as a permanent administration building for the school system. The building will contain the offices of the superintendent, the business manager, the building inspector, and the supervisory staff, as well as space for stock rooms, repair shop, warerooms and garage. The present building is in the direction of a permanent investment and greater economy in the operation of the administrative department.

—San Francisco, Calif. Under a new rule of the school board, public schools will not be permitted to compete with motion picture theaters in the giving of shows. The board has limited the number of shows which schools may hold for the raising of funds for items not provided in the budget.



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It is the Exit Lock with Lever Action at the Cross-bar to open the Door. There is No Spring Action and no Spring Tension. It is the One Exit Lock of Unfailing Operation, built on Everlasting Principles for Everlasting Service.



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SCHOOL BOARDS

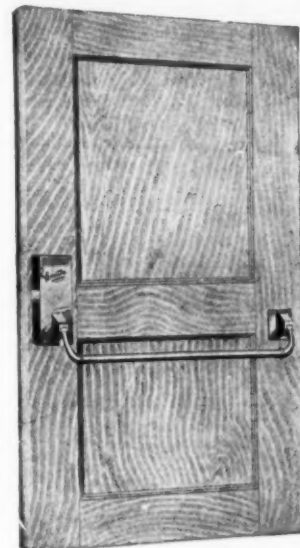
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—Oklahoma City. Upon recommendation of the superintendent, the schools of the city were not closed on election day. Neither were school buildings available as polling places.

—The school board at Pontiac, Mich., has employed special policemen to handle traffic near the schools and to protect the children from accidents. Two employees of the schools have been sworn in as special policemen and they will be on duty at two buildings during the morning, at noon and in the afternoon hours while children are entering or leaving the schools.

—Damages of \$10,000 have been asked in a suit brought by Mae F. Costello, a school teacher, against the chairman of Ingomar Dist. No. 33, Rosebud County, Mont., for false arrest and humiliation suffered before the students and community. Miss Costello was acquitted of the charge of unbecoming conduct and incompetency.

—McKeesport, Pa. As a solution of a troublesome problem, the school board has voted to exclude in the future, all high school students from districts outside of the city. The action does not affect students now enrolled as they have been allowed to remain until graduated.

—A test of the ruling of the Mississippi state board of education that Chinese children are not entitled to attend the schools for white children is to be made in the courts. The attorney general had made a ruling that Chinese children would not be admitted and the board of education acted on it.

—Wapakoneta, O., has taken steps toward securing one of the fifty Harmon playgrounds to be established this year. Members of the school board recently inspected the playground established at Bellefontaine.

—Wilmington, Del. A recent report submitted to the school board shows that the high school cafeteria was operated at a profit of \$1,890 during the last school year. The cafeteria served more than 150,000 meals, at an average cost of less than seventeen cents each. This year the profits will be turned back in the way of new equipment and a reduction of the cost of meals.

—Lorain, O. The school board has adopted rental rates governing all gymnasiums controlled by the board. Gymnasiums may be

rented at a rate of \$4 an evening and the high school auditorium at a rate of \$50 per evening.

—Under the Illinois law, wives under 16 years of age must attend school, according to W. L. Bodine, superintendent of compulsory education for the Chicago board of education. In compliance with the law, eighty brides of 15 years must return to school to remain until they become 16 years of age.

—Fort Wayne, Ind. The school board has recently voted to prohibit the use of schoolhouses and grounds for commercial purposes or for partisan political meetings on Sunday. The rule became necessary due to a controversy over the constituted authority in granting buildings for such purposes.

—Everett, Wash. The school board recently went into executive session when it met to discipline high school boys implicated in a hazing affair. The hazing consisted chiefly of hair-cutting bees and was directed against boys who had refused to leave classes when a strike was called. Expulsion of guilty students was threatened by the board.

It was pointed out that changes in school activities brought about either by the high school faculty or at the request of the parents had resulted in resentment on the part of the students.

As a result of the meeting it was shown that the testimony failed to definitely implicate any particular students in the affair and the students were exonerated.

—Erie, Pa. The school board has adopted a resolution providing that clerks in schools shall be on duty under the direction of the principals to which they are assigned, 38 hours per week during the period for which they are hired. They will serve from the end of the school term to the end of the month of June, completing a regular period of ten months' service.

—The District of Columbia Public School Association held its regular monthly meeting on November 5th, in the board room of the District Building. Dr. W. S. Deffenbaugh, chief of the city school division of the United States Bureau of Education, spoke on the subject, "City Boards of Education, Methods of Selection and Fiscal Independence."

—Madison, Wis. The school board has asked the city council to remove the voting booths from

the vicinity of the school buildings on the basis that they are an evil influence on young people.

—Indianapolis, Ind. The school board has proposed a number of so-called cabinet meetings for department heads and executives to bring about closer cooperation in business procedure, greater economy and increased efficiency. In view of the reduced budget for 1924-1925, it will be the policy of the board to carry out established plans, to avoid a deficit and to insist on economy in all departments of the schools.

—Neenah, Wis. The city and not the board of education is the proper party to institute condemnation proceedings against land owners unwilling to sell property for school sites, according to a recent ruling of Mortimer Levitan, assistant attorney general. In rendering his decision, Mr. Levitan points out that the city operates under the provisions of an old charter, which makes no provision for the condemnation of land for school purposes. Action toward obtaining a new school site had been deferred pending a definite ruling on the question.

—Wichita, Kans. A check for \$47,256, representing the difference between the contract price and the actual cost of the sanitary work done by the Reed Plumbing Company, has been received by the board of education.

It appears that the firm contracted to do the work, and when the job was half finished, the company failed and the board had to take over the work and complete it. The final cost was \$161,256 and the difference was paid to the board by the bonding company holding the firm's bond.

—Fargo, N. D. The city of Fargo won an injunction suit recently when the court issued an order restraining the village board of North Fargo from operating the village school and from further dissipating the property and funds involved.

It appears that following annexation proceedings, annexationists and the city of Fargo contended that village school district No. 96 ceased to exist. The village officers favored annexation but the school board opposed it. In September, the village school board rented a building for school purposes and appointed teachers to take charge. About 60 children from the village entered the Fargo city schools, while fifteen others were sent to the village school.

(Concluded on Page 99)

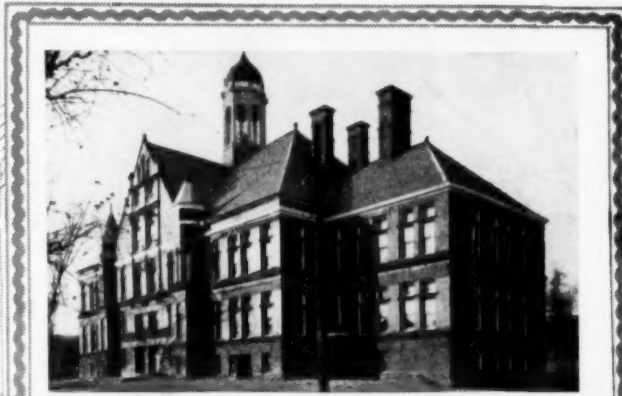
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For Freedom From Repairs

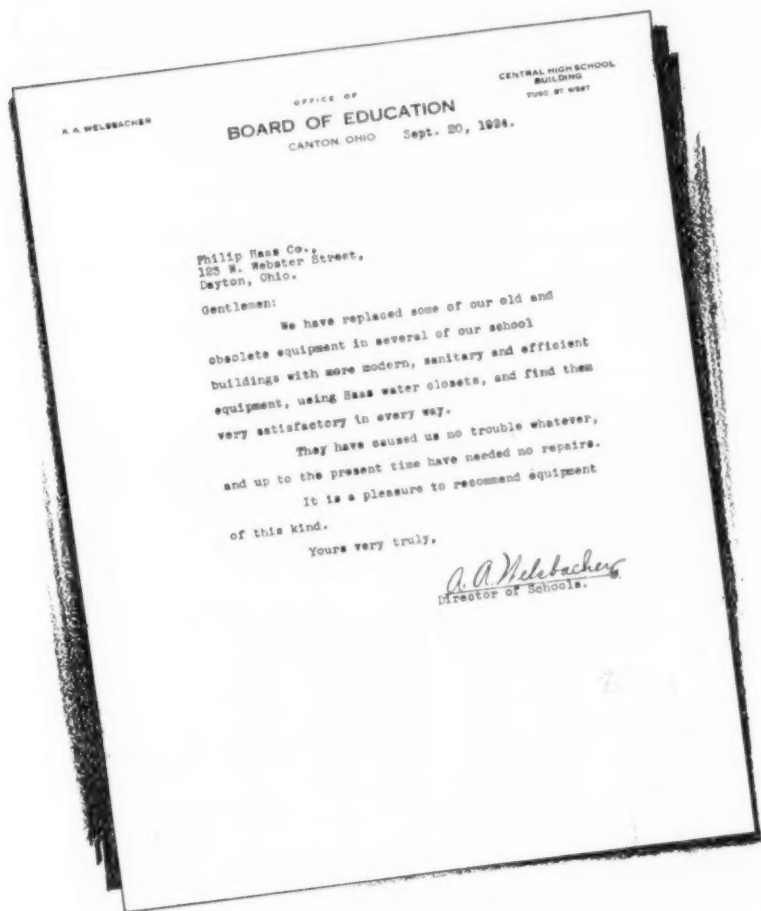
FLUSH
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VALVES



LEFT—
STARK SCHOOL,
CANTON, OHIO.
18 HAAS CLOSETS
INSTALLED IN 1922.



RIGHT—
CHERRY SCHOOL,
CANTON, OHIO.
20 HAAS CLOSETS
INSTALLED IN 1922.



Haas Water Closets and Haas Flush Valves have established an enviable reputation for economical and trouble-free service. The saving in water consumption as well as the freedom from repairs have made Haas Equipment well regarded in many of the most prominent schools and institutions throughout the country.

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The simplicity of the Haas Flush Valve is one of its desirable features. Haas Flush Valves have no metal-to-metal parts to wear loose and rattle. There are no small ports or needle point adjustments. To take the valve apart, all that is necessary is to unscrew the top cap nut, the valve cap lifts off and the diaphragm slips readily from the stem.

Adjustments for length of flush and amount of after-fill are very simple, when required, by means of common spacing washers. The handle and control valve are complete assembled units and can be removed at will.

Haas Flush Valves are easy to install and cheaper, by far, to maintain than any other flush valve. Their operation is positive and noiseless—the flush, powerful and cleansing.

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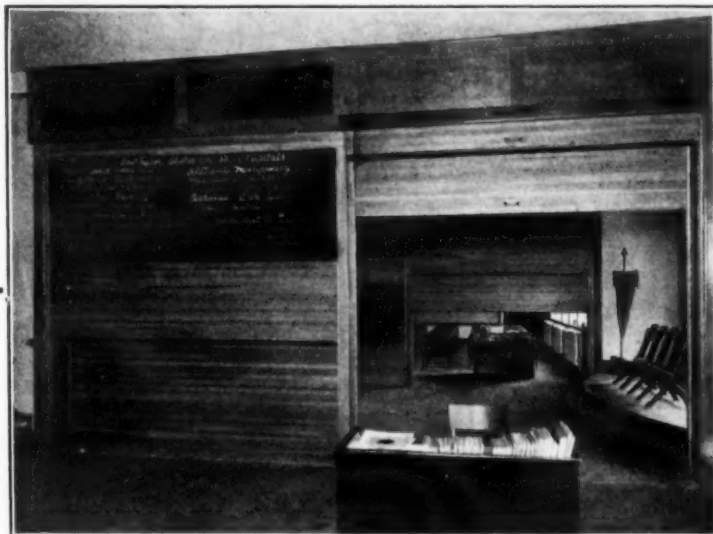
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The above illustration shows a unique installation of ACME HORIZONTAL PARTITIONS. It will be noted that two sets of partitions are used with a dead air space of about 8" between. This provides a very high degree of sound-proofness.

In this particular instance the center one of three rooms is used for study purposes. Recitations are held in the rooms on either side at the same time. When space is required for general assembly the partitions are rolled up out of the way and the posts removed—the entire operation taking but a few moments.

The installation has proven entirely successful from every standpoint. There is a practical blackboard surface on the face side of each partition which provides the necessary blackboard space in each room.

A single partition is sufficiently soundproof for ordinary classroom or gymnasium use.

ACME VERTICAL PARTITIONS for large openings.

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Pittsburgh, Pa.

(Continued from Page 96)

This action was followed by an injunction suit brought by a group of village taxpayers and city officials, to prevent continuance of the school and to require the turning over of funds to the Fargo school board.

—William A. King, a lumberman of Chippewa Falls, Wis., recently brought suit against the board of education, seeking to compel the promotion of his son from the kindergarten to the first grade. Mr. King in the face of a distinct rule of the board, contends that his son is in every respect qualified for promotion and should be so promoted.

—Kansas City, Kans. Vandalism costs the school board about \$3,500 each year, according to Clerk George Widder. Most of the expense is for broken windows, which entails a yearly bill of \$3,000 for glass and workmanship. Added to this, the board pays around \$350 each year for locks. Persons break into buildings constantly, damaging and ruining locks. They steal electric bulbs at the rate of twenty or thirty at a time.

—Buffalo, N. Y. The school board has prohibited all prize essay contests and similar stunts in city schools. It is not the purpose of the board to interfere in any way with students taking part in such contests as individuals, provided the work is done outside of school hours. Objection has been made to the contest idea on the ground that the contests become too numerous and that they take so much of the time of the faculties and pupils in the schools.

—The use of the King James version of the Lord's Prayer in the public schools of California has been forbidden as unconstitutional and a violation of school law, in an opinion from the state attorney general's office. The decision was given to William J. Cooper, superintendent of the Fresno public schools, and held that such readings would be violative of the spirit and letter of the different provisions of the school law.

—The New Jersey Supreme Court, in a recent decision, has dismissed the certiorari proceedings instituted by City Counsel E. F. Merrey, of Paterson, against the members of the board of education and former city attorney R. B. Lewis, of Paterson, in reviewing the action taken by the board in employing Mr. Lewis in representing that body in actions started against the board. The court, in its decision, points out

that the board is a separate corporation which, under the law, may hold property, sue and be sued, and has the right to engage special counsel, although no such provision has been made in the state law.

—The city attorney of Rapid City, S. D., has brought suit on behalf of the city against the local board of education for the payment of \$1,021, alleged to be due in delinquent water rentals. The purpose of the suit is to make a test of the action to determine the right of the city to collect water rentals from the board of education.

—City councils, boards of health or school boards may temporarily exclude pupils from schools as a health measure, under the Illinois laws, according to a recent opinion of Attorney General E. J. Brundage. The opinion was given at the request of Dr. H. B. Wood, health director of the Bloomington schools, relative to the question whether a person refusing to be examined might be excluded from the schools.

—Georgia Mahan, a student in the high school at Geneseo, Ill., was expelled for the remainder of the first semester by action of the board of education. Complaint was made that she wasted her time drawing pictures.

—Lincoln, Neb. The school board is trying out a new system of safety signals for busy streets near school buildings. Semaphore signals, extending across the street, will be installed and operated by publicly-employed private policemen.

—W. B. Reed of Peoria was named president of the Illinois School Board Association; W. C. Urban, Granite City, vice-president; Mrs. G. A. Stover, Oak Park, secretary-treasurer. New executive committee members named were W. B. Reed of Peoria, E. A. Bollman of Edwardsville, P. H. Hayes of Chicago Heights, and T. B. Chambers of East Moline.

"By far the most thankless task in a small community is to act upon the school board. They have to devote valuable time to the cause of education without a cent of pay. They have to listen to all petty gossip and to feel all the petty malice, which crops out whenever all people are engaged in a common enterprise. Public-spirited men undertake this office at a considerable loss and inconvenience," says a writer in the Carlyle, Ill., Union-Banner. "Yet there is never a shortage of candidates for the position

of school board members and so long as the schools keep their free character there will not be a shortage of available candidates. I think the reason for this is, while the board membership may have no financial inducement, it is to a very large degree, a badge of merit. The common run of voters exercise nicer judgment in electing a school board member than any other public officer. Putting a man on the school board is equivalent to saying that he is one of the reliable members of the community, according to the opinion of his neighbors. The election is a vote of confidence and an honor not to be despised."

—"A museum and not a school ground is the place for war trophies," said Richard T. Green, a member of the Montclair, N. J., board of education, when he recommended the removal of guns and tanks from the school grounds placed there by the town commission as a gift from the French high commission. A committee was appointed to adjust the matter.

—St. Louis, Mo. The school board has created the following positions for janitorial service at the Roosevelt high school: One head janitor, at \$170 per month, for twelve months; fifteen second janitors; two class A matrons; one Class B matron; one first engineer; one second engineer; two oilers; two firemen and two coal-passers.

—Naperville, Ill. The members of the board of education, with their wives, recently entertained the teachers of the public schools at a banquet and reception given on October 17th. The affair was for the purpose of giving teachers and board members a chance to become better acquainted with each other. It is probable that the banquet and reception will be repeated next year.

—A strange case has come under the attention of the Chester, Ill., board of education. A man was arrested for failure to send one of his children, a step-child, to school. This child, a boy, believed by the school board to be a negro, was ordered by that body to be sent to the colored school. The stepfather claims the boy is white. The court will have to decide.

—The New York City board of education has refused to reinstate Benjamin Glassberg, a teacher who was dismissed on the charge of disloyalty during the war. Immediately following

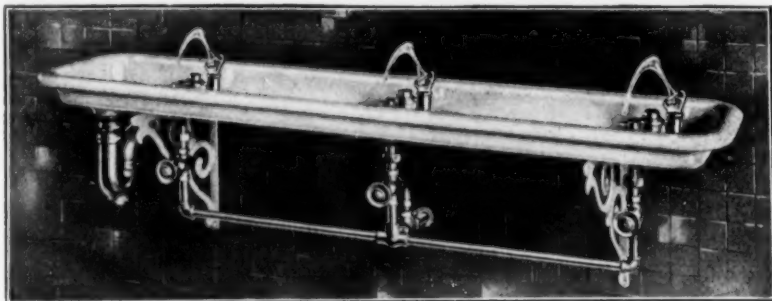
Various types for various purposes but all have the same exclusive patented features!

SCHOOL authorities and architects who have certain plans to meet in the installation of drinking water equipment will find that in specifying Halsey Taylor Drinking Fountains they secure the benefit of a complete variety of types to meet any particular need. This is just one reason why it pays to install Halsey Taylor Drinking Fountains, the most sanitary types possible to secure. AUTOMATIC STREAM CONTROL, assuring uniform height of water regardless of pressure variation; PRACTICAL DRINKING STREAM, keeping lips away from source of supply and preventing contamination; NON-SQUIRTING FEATURE, making it impossible to squirt the water on floors—these are features found in no other make!

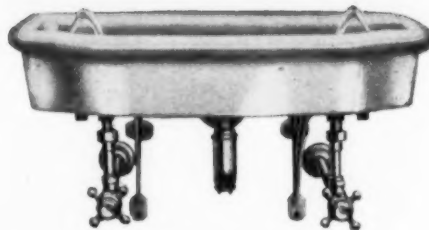
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cast iron trough enameled inside.
In two or three part.



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322 N. Jackson St.

his dismissal he taught in the Rand school. Arthur S. Somers, a member, stated that the young man had reformed and wanted a fresh start. President Ryan, in reply to Mr. Somers, declared that he would rather free a thousand political prisoners than to have one teacher in the classrooms of his city teach un-American doctrine.

—The school athletic field of Kent, Ohio, covering 2.8 acres of ground has been named Bowers Field by the board of education of that city. The name was chosen in honor of F. W. Bowers, a member of the Kent board of education for 23 years and clerk for 16 years. At present Mr. Bowers is clerk-treasurer of the board. He has been a consistent supporter of clean athletics in all forms.

—Galveston, Tex. The school board has adopted a typical month of four weeks and five days each, in place of the calendar month formerly in use. The change has been made to simplify the keeping of records in the making of reports and paying teachers' salaries.

—Indianapolis, Ind. Thirty-five children recently barred from school because of a controversy have returned to classes. The pupils had been transferred to another school; but, the condition of the street made it necessary for them to travel a round-about-way to reach the new school, more than a mile from their homes. The parents sent the children to the old school each day and they were promptly sent home.

Under the agreement, all but six of the 35 pupils have returned to the former school. The remaining pupils are robust boys and they will continue to attend the new school.

—All children must attend a full-time school until they are 16 years of age, unless lawfully employed, according to a decision of Attorney-General E. J. Brundage and State Superintendent F. G. Blair, of Illinois. It has been a popular opinion that the completion of the eighth grade removes the child from the application of the compulsory attendance law. The interpretation of the law is that pupils may be compelled to attend high school where they have not reached the legal age.

—The Alabama School Journal explains the state school taxation plans of Alabama as follows:

"A three-mill tax is provided in the state constitution, levied on all property in the state of Alabama which is subject to taxation, paid into the state treasury, and then divided among the counties on a per capita basis. A citizen pays into this fund \$3.00 for each thousand dollars of assessable property which he owns. A farmer whose assessment is \$1,000 pays \$3.00; an owner of a million-dollar cotton mill pays \$3,000. The state considers all children equally valuable, however, and the proceeds are divided per head. The farmer's child receives the same amount for schooling as the cotton mill owner's. This tax on all the property of the state amounts to about \$3,500,000; and during last school year it produced \$4.33 for each child of school age in the state. Through this law, the richer parts of the state give considerable aid to the poorer sections."

—Tiffin, Ohio. The school board has asked the voters to approve a 2.75-mill tax levy to prevent the closing of the schools. It is believed that the regular 5.65-mill levy will come within \$40,500 of keeping the school in operation a full term.

—Guthrie, Okla. The cornerstone of the new high school was laid on October 8th. Mr. H. S. Johnston delivered the oration of the day.

—Omaha, Neb. The school board has been threatened with an injunction against the use of any of the proposed \$2,500,000 bond issue, if a new Sherman school is not included in the building program. The conditions at this school are deplorable and it is argued that the pupils of the school should be given preference over all other schools.

—Elgin, Ill. An election will be held in December to vote on the erection of two junior high schools. The two buildings will be designed to house 1,200 students and will cost \$650,000.

—Kenosha, Wis. Operating expenses for the city schools, exclusive of building cost, will cost the city \$707,873 the present year. The money

is divided as follows: General control, \$31,010; instruction, \$556,223; operation, \$88,292; maintenance, \$19,600.

—Shreveport, La. On October 3rd the cornerstone of the new Byrd high school was laid with impressive ceremonies. The school has been named for Supt. C. E. Byrd, who established the first high school in the city and who has served for 32 years in his present position.

The building contains, in addition to 64 classrooms, a swimming pool, a gymnasium, an auditorium, shops and laboratories, etc. A cafeteria, planned and equipped for a large student body, has been included. The building was erected from the proceeds of a bond issue and cost a total of \$772,000, inclusive of the site, the landscaping and the furniture.

—Lexington, Mass. The outstanding feature of the work the past year has been in the direction of new buildings. A special appropriation of \$480,000 voted last June has been utilized in the erection of a \$60,000 addition to one of the grade schools, and the erection of a senior high school costing \$420,000. The latter building, which is designed to accommodate 1,000 pupils, will be completed in December, 1925.

—One of the features of the dedication of a new school at Freeport, Pa., was the placing of a bronze table bearing the ten commandments. President A. L. Stroud of the board of education and Dr. C. F. Hoban of the state department were the principal speakers.

—The new Williams school at Hudson, N. Y., was dedicated with an address by Dr. Avery W. Skinner of the state educational department. The cost of the school is \$155,000. The school was named in honor of the late Charles S. Williams, for eighteen years superintendent of the Hudson schools.

—The new Bankead high school at Cordova, near Jasper, Alabama, was dedicated with appropriate ceremonies. A feature of the occasion was an address by John H. Bankead, Jr., for whose father the structure was named. The subject of his address was "Your School—My Father."

There is danger in paper "converted" from waste refuse. Use "Public Service" Towels—made from fresh, new spruce wood only.



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LIKE "No Waste" Toilet Tissue, "Public Service" Towels are made from fresh, clean, spruce wood only—not from germ-laden wastepaper refuse. They give the double protection of individual towels from sanitary origin.

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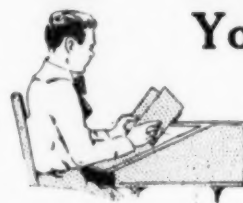
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Carelessness in the use of ordinary fumigating candles causes the loss of thousands of dollars worth of school property every year. Feeling the need of greater safety in fumigation our Research Department made a series of investigations which finally resulted in Rex Safety Fireless Fumigator which fumigates without the use of fire or inflammable material. The fumigating agent is Formaldehyde, the most powerful and widely recommended fumigator in existence. In the ordinary Formaldehyde candle the gas is generated through the action of the flame and inasmuch as the rooms must be closed up and left alone for a number of hours the danger of leaving a burning candle is obvious. With Rex Safety Fireless Fumigator chemical reaction generates the Formaldehyde Gas, producing heat that is without danger. Only hot water is used. Rex Fumigator acts quickly and efficiently with a maximum amount of safety.

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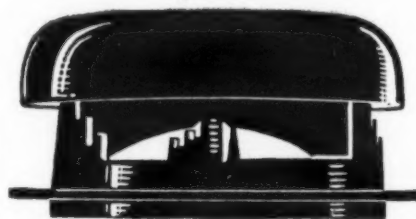
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SCHOOL ADMINISTRATION NOTES

A FIRE INSPECTION SCORE CARD

The city of Fresno, Calif., is making use of what is believed to be the first score card for fire department inspection of school buildings. The score card was worked out by Superintendent Wm. John Cooper of the city schools and has been used successfully since the opening of the present school year.

In a recent letter Mr. Cooper describes the development and the use of the score card in the following language:

"The Fresno City Fire Department, during the past two years, has been especially active in fire prevention work, and the city schools have cooperated in every way possible in this work. In order to keep up interest in fire prevention, now that the city has won the well-known Ince Trophy, the fire department is anxious to discover new ways of fire prevention campaigning. The city superintendent of schools has been working for some time upon a scheme for scoring fire drills and condition of the school plant from the fire prevention point of view. This seemed a propitious time to spring the matter, and accordingly there has been printed the form attached hereto, which is bound in books of 25 sets and one book left with each school. All fire alarms are turned in by representatives of the city fire department, and are supposed to be a surprise to pupils, teachers, janitors, and principal alike.

"You will note that in order to get an excellent report all of the four groups must cooperate. For instance, under topic A, items 1, 2, 3, and 4 are primarily up to the pupils in the school. Item 5 means that the principal must get quickly to a designated station where he can see the greatest number of his pupils. Item 6 means that there is a pupil in each room who is responsible for quickly reporting to the principal at his station that the said pupil's

FRESNO PUBLIC SCHOOLS FRESNO, CALIFORNIA

Fire Department Inspector's Report

The inspector will please put a circle around the number which in his judgment best indicates the score earned. If any item should be scored very poor, the inspector will place zero under "credits allowed." The carbon copy will be left with the principal of the school, and the original copy delivered to the Fire Prevention Bureau of the City of Fresno Fire Department by the inspector.

Approved:

THOMAS M. BAIRD, Chief Engineer
City of Fresno Fire Department.

WM. JOHN COOPER,
City Supt. of Schools.

	Exceptionally Good	Superior	Average	Inf.rior	Poor	Credits Allowed
A—FIRE DRILLS						
1. Promptness of movement and exit time.....	9	8-7	6-5-4	3-2	1	
2. Orderliness of exit.....	9	8-7	6-5-4	3-2	1	
3. Care of ill, crippled, etc.....	5	4	3	2	1	
4. Lines clear of building.....	5	4	3	2	1	
5. Prin. (or rep.) on station.....	3	2	1	Not at all		
6. Rooms reported empty.....	(all) 5	4	3	2	1	
7. Fire extinguishers manned (including hose).....	6	5	4-3	2	1	
8. Street gates open.....	(all) 3	2	1	None open		
9. Exit doors open.....	(all) 5	4	3	2	1	
10. Class doors closed.....	(all) 5	4	3	2	1	
B—CONDITION OF PLANT						
1. Corridors and fire escapes clear.....	6	5	4-3	2	1	
2. Condition of heating plant.....	5	4	3	2	1	
3. Cleanliness of basement.....	5	4	3	2	1	
4. Cleanliness of grounds.....	5	4	3-2	1		
5. Condition of fire extinguishers.....	5	4	3	2	1	
6. Care of oils and other janitor's supplies.....	5	4	3	2	1	
7. Care of gasoline, acids, etc.....	5	4	3	2	1	
8. Condition of lunch rooms and stoves.....	6	5	4-3	2	1	
Possible Score.....	100					
Score Made.....						

Date..... 192..... Signed.....

Inspector.

FORM USED IN RECORDING INSPECTIONS.

room is empty of all children. Item 7 requires, in large schools, that the janitors promptly man the emergency fire hose. In the smaller schools two boys are appointed in each room to carry out the fire extinguisher from that room. In our small portable buildings as soon as the fire alarm has been turned in the children march out and after they are entirely clear of the building the last two boys set down the fire extinguisher so that the fire fighting force can see all the fire

extinguishers belonging to the school lined up where they may be used. Item 8 requires that janitors or pupils may be responsible for seeing that street gates are open to permit ready entrance by the fire department. Item 9 provides that all doors to the grounds must be open. Under item 10 the pupils are responsible for the closing of classroom doors after the rooms are empty, in order that the progress of the fire may be retarded.

"Under topic B, item 1 requires the cooperation of pupils and janitor. Item 2 makes the janitors responsible, as does item 3, but item 4 is largely a matter for pupils to attend to. Item 5, the care of and recharging of fire extinguishers, is the duty of the janitors under the supervision of the principal. Item 6 checks the janitor on keeping oils, oily sawdust, and oil rags, in fireproof containers. Item 7 not only checks janitors but teachers who use gasoline and acids in their classrooms. Item 8 requires the cooperation of teachers, pupils, and some employees."

LOOK AT THIS EVERY DAY

A Card of Suggestions, Prepared by Supt. Arthur Lee, and Issued for the Use of Teachers of Clinton, Mo.

Loyalty is the fundamental quality in members of any organization. Loyalty is the fundamental quality of a corps of teachers.

Courtesy, kindness, and cordiality are marks of the fine teacher. Never nag, never bully pupils, never use sarcasm. "Wounds made by words are hard to heal."

We are fortunate if we can always maintain poise and self-control.

Don't be overly sensitive; don't think much about yourself; play the game.

Treat patrons and the public generally with courtesy and consideration.

One good way to have polite pupils is always to treat them politely.

A teacher's business is not merely to hear recitations but to teach, to make dark things clear, to show how to overcome difficulties, to fill the minds of learners with light.

Try to foresee and prevent undesirable occurrences. An ounce of prevention is worth a pound of cure.

Talking too much is many a teacher's besetting sin. Encourage your students to talk.

The School House Window Meets Its Real Test In Winter



The "Williams"
Reversible Window

THE WILLIAMS
PLANK FRAME
REVERSIBLE WINDOW
EQUIPMENT PROVIDES
Ideal overhead ventila-
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Better shading facilities
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Weightless windows

A Window must protect from the cold as well as provide light.

When opened it should prevent drafts.

Repairs in winter are costly and dangerous.

Cleaning is very dangerous except when done from within.

An ideal school house window is obtained when a wood sash is equipped with the Williams Plank Frame Reversible Window Equipment. The winter heat loss is cut to the minimum, the operation of the window made more simple, each sash can be completely reversed for cleaning, the incoming air enters the room overhead and there are no weights to stick or drop off. We install our own equipment and guarantee its satisfactory operation.

THE WILLIAMS PIVOT SASH CO.

E. 37th and Perkins Ave.

Cleveland, Ohio.

Don't repeat your questions; don't repeat pupils' answers.

It is not enough that all the men and women in a corps be good teachers; there must also be team work. You are not a solitary worker but a part of a group, and therefore your interest should embrace the whole school. Every teacher in an efficient corps is willing to work outside his room or department when necessary. Under unusual circumstances he cheerfully assumes added responsibility in order that the work of the school may proceed normally. If the principal is absent, teachers increase their efforts in order that the work may not suffer. If a teacher is absent, the other teachers are more vigilant.

A teacher should have breadth of mind. Keep learning and growing and keep hospitable to new ideas.

A teacher should be healthy in body and mind, happy and bright in disposition, refined in manner, and sound in character; for all of these qualities are catching when pupils are exposed to them day after day.

A SLOGAN OF SCHOOL WORK

Supt. J. P. Treat of Manitou, Colo., has issued a circular to teachers in the Manitou schools, outlining a slogan for the year 1924-1925, and suggesting lesson types which will assist in making the slogan a reality. He asks the teachers to earnestly and persistently use the types of recitation to plan each day's lessons in accordance therewith, and to use every means of gaining the end suggested in the slogan.

I. Slogan for School Year 1924-1925:

1. Negatively Stated.—"No Subject is Uninteresting unless Teachers Make it So."

2. Affirmatively Stated.—"Every Subject is Interesting when Properly Taught."

II. Some Different Types of Recitations:

1. **The Antiquated Type.**—Pupils recite dogmatic and isolated facts which have been previously assigned, memorized more or less accurately, and given in response to questions more or less skilfully framed by the teacher. (This method, still very common, is nothing but a test of rote memory without any contribution to reflective thought processes or any other processes that have educational value. Studiously avoid this type of a recitation as much as possible.)

2. **The Reflective Thought Type.**—Teacher develops a topic or subject by means of skilful questioning—the kind of questioning that stimulates reflective thinking. (This method should be used frequently, especially when lessons offer directly or indirectly any opportunity to get away from "the antiquated type." In Geography or General Science, for instance, the question, "If the earth should fall, where would it go?" calls for reflective thinking. "Was General Sherman justified in making his celebrated march to the sea?" is a similar question that may be discussed by a history class. Almost every lesson affords opportunities for such questions. Do not pass them by.)

3. **The Topical Type.**—Teacher assigns different topics or phases of a subject to individual pupils or groups for investigation and report. Later these reports are given, questions are asked and answered, and then follows "a free give-and-take discussion" till the recitation period ends. (This method is especially adapted to older classes, gives training in self-expression and in self-confidence; and teaches pupils how to discover, organize and evaluate data, thus stimulating thought, creating interest and developing the power of initiative. The idea is that of group activity and co-operative effort and it has great value when skilfully put into practice. Some very successful teachers, using this type of a recitation, turn the period for reports and discussions over to the class or a committee, the teacher withdrawing temporarily from active participation; when this is done, it is popularly called a "socialized recitation.")

4. **The Object Lesson Type.**—The inspiring aim of this method of conducting a recitation is to relate by skilful questioning important facts to real or concrete things—a method that is very useful in nature study and laboratory work. (With plenty of material to work with, or apparatus to experiment with, this method has great educational value—it creates interest, trains the senses, develops perspective power and places real things or activities in their proper relations and as parts of larger thought processes such as judging, reasoning, generalizing, etc.)

5. **Inductive Type.** A very effective method of giving pupils abstract meanings or general

notions. Choose one typical city, for instance, and by careful study of that one, general notions of all cities are acquired. (This method may be profitably used in studying mines, chemical reactions, electric currents, sound-waves, agriculture, modes of transportation and communication, certain geographical regions, classes and species of plants, animals, races, etc. The immortal Shakespeare never traveled; but by making things present typical of things remote, he became highly educated and a master worker.)

6. **The Appreciation Type.** A method the inspiring aim of which is to develop a feeling of appreciation that affects and raises the pupils' ideals. This is done by appealing to interest, to emotion, and to sense of appreciation of the deeper and finer significances than appear at first sight, thus enabling pupils to get hold of the true significance of facts and objects and their reactions. (This method should be frequently used along with other recitation types in teaching history, biography, art, and some phases of geography, nature study, etc. In history, for instance, "Who is the greatest American, and why?" gives opportunity to develop appreciation. "What makes the Brittany Sheep by Rosa Bonheur a great picture?" is another example.)

7. **The Review Type.** A method which aims to review old material so as to get NEW views and to make permanent in pupils' minds certain logical associations and ideas; and to accomplish this NOT by rote memorizing or repetition but by NEW teaching. Instead of reviewing the bare facts about William Tell or George Washington, require pupils to think out why these immortals are fathers of their respective countries; or instead of reviewing, in a num-drum way, the facts about germs, have pupils find out all the reasons why we should "Swat the fly," or have them think out "Why Napoleon was like Alexander the Great," or have them decide whether umbrellas or sun-shades are needed in different parts of South America—do this instead of requiring the bare details as to climatic conditions and causes for same. (Reviews conducted in this way have not only great educational value, but they create interest and make the best preparation for tests or examinations.)



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equipped with 2,200

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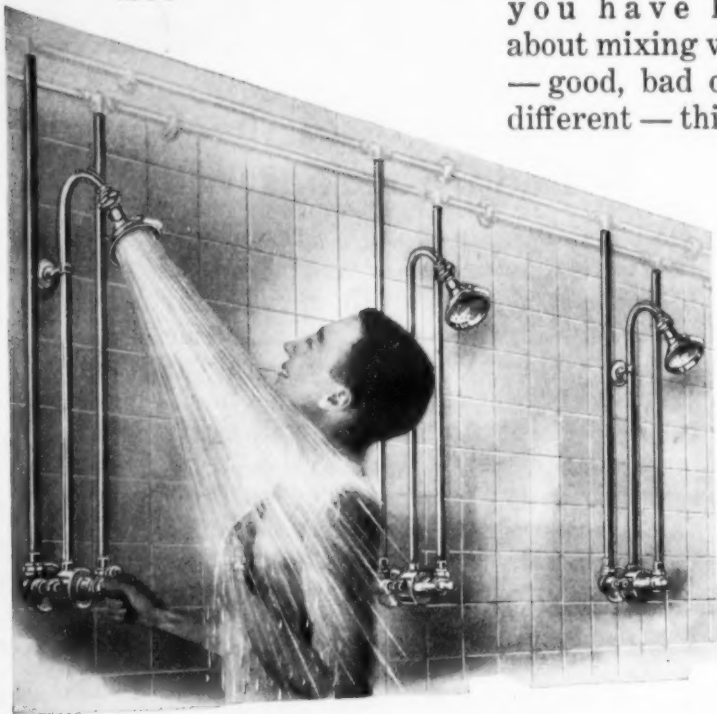
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PROMOTE
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Bradley Washfountains represent a great advance in modern washroom equipment. They promote both cleanliness and sanitation, are self cleaning and require but a minimum of janitor service.

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A FEW RECENT INSTALLATIONS


Crane Technical High School, Akron, Ohio.	Theodore Junior and Senior High School, Green Bay, Wis.
Tilden High School, Chicago, Ill.	Marquette University, Shorewood Grade School, Continuation School, Milwaukee, Wis.
Schurz High School, Amsterdam, N. Y.	High School, Stevens Point, Wis.
St. Charles High School, St. Charles, Ill.	High School, Janesville, Wis.
	Fortuna Grade School, Fortuna, Calif.
	Washington Ave. High School,
	Woodland Union High School, Woodland, Calif.

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Urine and excrementious matter causes deterioration, but not in WHALE-BONE-ITE, which is urine and moisture proof.
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THE MORE IT IS USED
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Hinges are at rear, connected with concealed plate—no metal top or bottom—strong, rigid and fool-proof.
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EVALUATING THE RECITATION

Mr. F. B. Fitzpatrick, of the Radford State Teachers' College, at East Radford, Va., has recently prepared a scale for evaluating the recitation. This scale is interesting in that it includes both teacher and pupil activity and affords a definite method for evaluating each. The outline is as follows:

Evaluating the Recitation

BRADFORD STATE TEACHERS' COLLEGE
East Bradford, Virginia

I. Teacher-Activity (50)	100%	A	B	C	D	E
1. Clearness and definiteness of purpose (10).....						
2. Choice and organization of subject matter (10).....						
3. Maintenance of order and discipline (10).....						
4. Emphasis on Essentials (10).....						
5. Effective assignment (10).....						
6.						
7.						
II. Pupil-Activity (50)						
1. Per cent of attention (10).....						
2. Self-initiated interest (10).....						
3. Initiative (10).....						
4. Habits of study (10).....						
5. Pupil preparation (10).....						
6.						
7.						
Summary of ratings.....						

According to careful investigation, the above are ten of the most important standards for evaluating the recitation. The figures show the value of each standard. The scheme has two

scales—the per cent scale and the literal scale.

To use the per cent scale give each item what you think it deserves out of ten and total the results. To use the literal scale make a point opposite each item in the column in which you think it belongs. Join the points for a graph. Note the high and weak points in the graph. Under "Summary of ratings" designate the recitation by the letter that describes it best. Was it an A, B, C, D, or E recitation? In case one does not care to grade all of the standards, simply put appropriate letters opposite those graded and leave off graph. Two blanks under each heading are left for additional standards or substitutions.

Explanation

I. TEACHER-ACTIVITY: (Plans, devices, and acts of the teacher.)

1. Clearness and definiteness of purpose. The aims of the teacher should be clear and definite.
2. Choice and organization of subject matter in the forms of lessons plans, outlines, problems, projects, types, etc.
3. Maintenance of order and discipline. Good order is the first condition of effective teaching.
4. Emphasis on essentials. Teacher must be able to distinguish between essentials and non-essentials and to emphasize essentials.
5. Effective assignment. This calls for clearness and definiteness and effective motivation.

II. PUPIL-ACTIVITY: (Thoughts, feelings, and acts of the pupils.)

1. Attention. Number of pupils attentive divided by the total number in the class.
2. Self-initiated interest. Activity prompted from an inner desire. Self-motivated activity. Work on the play level.
3. Initiative—Originality, independence, and self-reliance. Willingness to go in front. Discovery of new ways of doing things.
4. Habits of Study—Quiet, reflective, and independent thinking. Problem-solving. Choosing and organizing material.
5. Preparation of pupils. Evidences of outside study.

Reverse of Score Card.

SCHOOL ADMINISTRATION

—The Bellingham, Wash., board of education has had for several years a rule against the employment of married women teachers. Those married, however, have been allowed to remain. Chairman Allen Campbell believes that in a few years married women teachers will be entirely eliminated from the school system.

—The report cards issued by L. C. Martin, superintendent of Richland County, Indiana, contain the following paragraph: "Sleep enough, drink milk, avoid tea or coffee; eat slowly, eat less meat; eat vegetables; eat fruit; keep clean; dress sensibly; exercise daily; sleep with open windows; correct posture."

—Bossier Parish, La. A classroom supervisor was added to the staff last year. Standard tests were given at the beginning and the close of last year, with the result that excellent progress was shown in the work accomplished during the year.

—The county unit plan of school government was favored by the state parent-teachers' meeting held at Indianapolis, Indiana. "Know your school," is the slogan adopted. H. L. Smith of the Indiana University said: "The county unit system refers to the local system of administering schools as opposed to what is implied in a state system of administering schools. In this state we have a combination system of school administration. Ordinarily the state contributes, in a limited way, to the financial support of schools, fixes standards for them, and exercises general control over them. The local school units contribute the major part of their own financial support, manage their schools under the limitations set by the state, and often develop their schools beyond the minimum standards set by the state. Today the advantages of the county system are making a strong appeal in many sections of the country."

—"If you tell me what the ideals of a nation are I will be able to tell you what its educational methods are," said Dr. Stephen A. Dugan before a parent-teachers' organization at Scarsdale, N. Y., recently. "Or if you give me their system of education I will tell you what are the nation's ideals. The outstanding feature in American life is the equality of opportunity and this is reflected in our system of education. We are determined to allow every

How to keep your buildings fit

FOUR parts of a school building require more than their share of attention. Here are suggestions on how you can eliminate repairs on these trouble spots for a long time to come.

Care of floors—Under friction an ordinary concrete floor gives off a fine harsh dust that is harmful to lungs, clothes and equipment. This dust is a sign of floor wear, the forerunner of repairs to come.

You can prevent the dust and forestall repairs by treating the floor with Lapidolith. This liquid chemical penetrates the concrete, hydrates the free lime and changes the coarse-grained structure to a fine, even, dense wearing surface of crystalline formation. This surface is flint-like in its hardness. It is dustproof, wearproof, waterproof. In the leading industrial plants of the country, there are hundreds of millions of feet of Lapidolized floor.

If you have wood floors you can do away with the use of floor dressings, and at the same time prevent your floors from splintering, rotting or drying out. A treatment with Lignophol will do the trick. This preservative liquid penetrates

the wood, restoring its natural gum and oils. It maintains a hard, smooth surface, one that is easy to keep clean. Even ink stains can be wiped off the floor when Lignophol is used. One treatment lasts for years.

Paint less often—Interiors require less painting where Cemcoat is used. This paint stays white long after other paints yellow with age. Cemcoat does not crack or peel off the wall. It even adheres tightly to concrete or brick—that is why it is named "Cemcoat." An interior painted with Cemcoat is bright and cheery. It can be washed again and again and each time the paint looks like new. Dirt, pencil marks, ink stains—these can easily be removed.

Because of its body, Cemcoat usually requires one less coat than other paints. It is made for both interiors and exteriors, in white and colors, and in flat, eggshell or gloss enamel finishes.

For library or study hall you will like the quiet restful tone of Sonotint. This paint is extremely restful to the eyes. Its dull surface absorbs the glare-producing rays of light instead of reflecting them.

Leaky roofs—If your roof leaks,

Stormtight will make it permanently waterproof. This thick, elastic rubber-like compound adheres to any surface, wet or dry. It can be applied by anyone over any material. A small leak can be instantly and permanently repaired. An entire roof can be made lastingly waterproof. Many an old roof that was about due for replacement has been made as good as new with Stormtight. It is made in semi-liquid form for small leaks, and in plastic form for use on sizable holes. Packed in containers holding from 1 to 60 gallons.

Exterior walls—If you have a wall through which moisture seeps in a driving rainstorm, you will be glad to know about Hydrocide Colorless. This waterproofing material is applied on the outside of a building, but the natural beauty of a wall is not impaired in the slightest, for Hydrocide can not be seen when applied. Yet the wall is tightly and permanently sealed; the interior remains perfectly dry no matter what the weather. Send for literature giving more complete information on any of the above products that interest you.

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boy and girl to develop according to his or her natural abilities, so that any child can climb as high up the ladder of education as he can. On the other hand the educational systems on the continent of Europe are organized on the caste system."

—Galena, Kans. The fourth, fifth and sixth grades of the public schools have been departmentalized with the concentration of these grades in the East Galena School.

—Grand Rapids, Mich. The school board has received a gift of eight lots from Mrs. Hattie Amberg for an enlargement of the Julius Houseman athletic field. The gift has been made in memory of Mrs. Amberg's daughter, and is in addition to a previous gift of the field itself. The field is to be used for recreation and physical development by the students of the Central High School.

—Meriden, Conn. The school board has adopted a rule, providing that no pupil over fourteen or under sixteen years of age shall be permitted to leave school, unless he or she has completed the work of the seventh grade. Exceptions are to be made by the board in individual cases.

—President George J. Ryan of the New York City board of education, in a recent report, shows that there are 61,910 less pupils on part time in the city schools this year, in spite of the fact that there is an increase of 21,086 pupils. The report shows the first large reduction in congestion in the schools in many years. In September, 1922, there were 166,717 pupils on part-time. This number was reduced to 157,258 a year ago, a decrease of 9,439. This September, the total number of children on part-time in the elementary and high schools is 95,368, a reduction of 61,910.

This reduction in the number of pupils on short time shows that the large number of new sittings completed during the past twelve months has made it possible to care for school children better than they have been cared for in years. It is promised that further improvement will be effected during the year through the opening of two new high schools, the completion of a third high school, and the opening of eight elementary schools. There are indications that at least 20,000 new sittings will be added within the next few months. It is evident that the board's building program is not only

taking care of the annual increase of 21,086, but also is bringing about a reduction in the number of children on part-time based on the register.

—Weirton Cove, O. The school board has adopted a recommendation of the superintendent, providing for semi-annual promotions of pupils. All grades will be classified into A and B divisions and pupils will be promoted to the next higher division.

—The school board of Paterson, N. J., has adopted a resolution prescribing the supervisory duties of heads of departments in the high school. The rules read as follows:

"1. That each teacher in the Paterson high schools be required to teach no more than 25 periods per week, except in the case of subjects requiring little or no preparation outside of school hours. Study periods and other duties occupying the remainder of the weekly time schedule shall be subject to the principal's assignment.

"2. That, excepting in temporary emergencies, heads of departments are expected to teach the number of classes designed below in accordance with the size of the department.

"(a) In departments containing seven or less than seven teachers the heads of department are expected to teach no more than twenty periods per week.

"(b) In departments containing eight to fifteen teachers the heads of department are expected to teach no more than fifteen periods per week.

"(c) In departments containing sixteen to 24 teachers the heads of department are expected to teach no more than ten periods per week.

"(d) In departments containing 25 or more teachers the heads of department are expected to teach no more than five periods per week.

"3. That the principals may grant time (i.e., teaching period) allowance to teachers who may be assigned by the principal to take charge of special activities, such as employment bureau, tardiness, school funds or any such other activities as in the opinion of the principal and superintendent warrant such time allowance.

"4. That the paragraphs above specifying the number of teaching periods for heads of departments is designed to afford them time for improving the teaching of their department and to perform such other duties as the principal

may assign to heads of departments.

"5. That in the supervision of teachers heads of departments are expected

"(a) To keep on file for at least three terms a record of each visit which shall contain at least the date, name of teacher, lesson taught and such other material or comment as the head of department may see fit.

"(b) To file with the principal by the tenth of each January and June a list of visits to each teacher, together with a brief written comment on the work of each teacher in his department, if latter is deemed advisable.

"(c) To file with the principal when making an adverse or decidedly unfavorable report on any teacher, a statement of the respects in which said teacher is deficient, kind and character of help given by the head of department, and a brief statement of opinion as to whether said teacher may be expected to respond satisfactorily to further helpful and constructive supervision.

"(d) To visit each teacher as often as he deems necessary, but each teacher shall be visited for at least one full period per term, and inexperienced teachers serving under temporary appointment shall be visited at least three times per term for a full class period. (This is not suggested as an ideal, but simply as a minimum requirement.)

"(e) To have a private conference with teachers serving under temporary appointment shortly after the class visit.

"(f) To hold departmental meetings from time to time at which problems of common interest to the department can be freely discussed and to keep on file brief minutes of such meetings."

—Springfield, Ill. A special class for crippled children has been established by the board of education. The class will enroll from twenty to fifty pupils.

—Omaha, Neb. Pupils of the eighth B grade, about to be promoted to the high school, were recently given the Stanford achievement tests to supplement the regular tests of teachers. The two in arithmetic, and others in history, literature, language, spelling and science.

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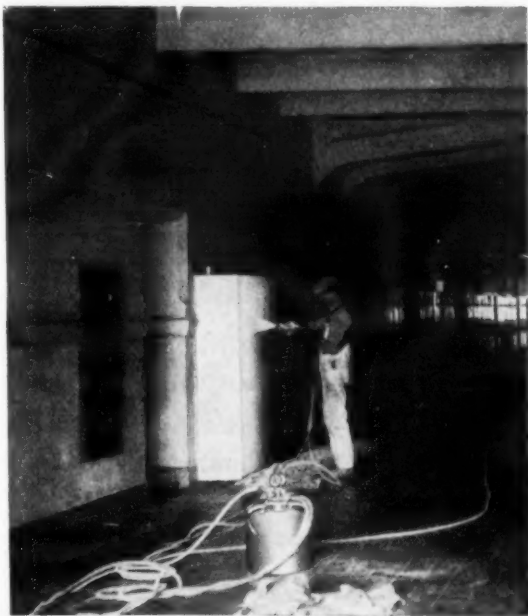
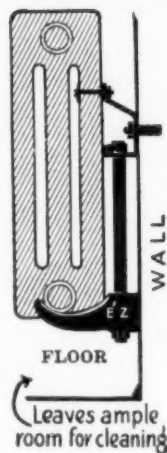
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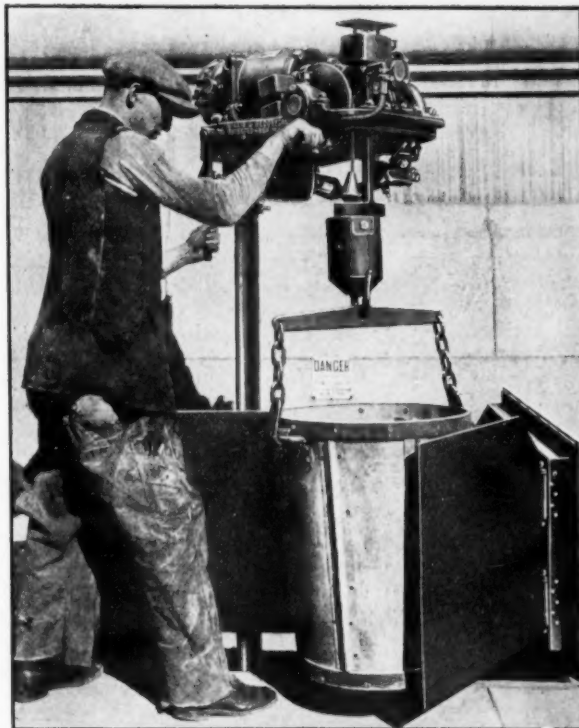
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AFTER 11½ years service in Public School No. 61 on East 12th Street, New York City, a Model A G&G Telescopic Hoist is still in first class operating condition and in daily use.

This was the first G&G Telescopic Hoist installed for the Board of Education of the City of New York in February, 1913. Since that time several new electric models have been brought out and today there are eighty-four G&G Hoists operating in New York City Schools, 77% being Model E electrically operated Hoists. A recent typical installation is shown in the illustration.

The same sturdy, dependable materials and careful workmanship which went into the Model A Hoist 11½ years ago, characterize all the present day G&G models. They are built for rapid removal of ashes, with saving of time and the elimination of unnecessary labor. In the case of the electric Hoists, the amount of current consumed is remarkably low.

If you will tell us the quantity of ashes to be removed daily, distance of lift and something about the working conditions of your plant (submit sketch if possible) we will recommend type of hoist to use and give the cost. Illustrated booklet on request.

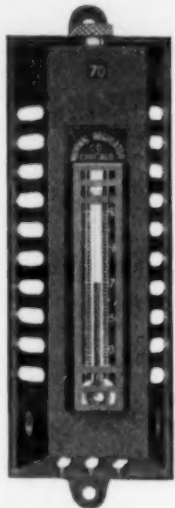
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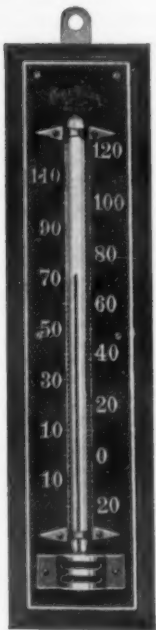
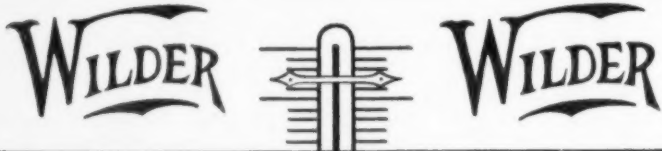
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Demand Accuracy In Thermometers As You Do In Class-Room Teaching

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Door Closer
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1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

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absolute quiet—no latch necessary.

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Relieve the congestion in your school now, instead of waiting until next summer. Berloy Lockers in your corridors or basement will make your cloakroom space available for classroom purposes. We can do our part by making prompt shipment. The erection can easily be accomplished during Christmas week. Send for Catalog Y-7, and choose the most suitable type for your requirements.

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PERSONAL NEWS OF SCHOOL OFFICIALS

—Out of a field of eleven candidates to fill five existing vacancies, the school board at Sandpoint, Ida., returned to membership Mr. R. F. Curtis, Mr. Allen P. Asher and Mr. J. H. Phinney, whose terms as temporary appointees had expired. Mr. T. L. Gibson, whose term had expired, was also reelected, and Mr. E. R. McCory was elected to membership. Dr. J. D. C. Guy, a holdover member, was made president of the board, and Mr. W. S. Finney was reelected as secretary.

—At the annual reorganization meeting of the school board at Richmond, Ind., Mr. H. R. Robinson was elected president, Mr. Walter McConaha, secretary, and Mr. Walter Reid, treasurer of the board, for the year 1924-25.

—Mr. T. P. Perry has been reelected president of the school board at Coffeyville, Kans.

—The school board of Toledo, O., recently adopted resolutions giving tribute to the late Charles Feilbach, formerly president of the school board.

—Mr. Henry Eggers, clerk of the school board at Birchwood, Wis., has resigned. Mr. C. W. Evans was appointed treasurer to succeed Mrs. Henry Eggers.

—Mr. John S. Witt, president of the school board at Spring City, Pa., died at his home in that city on October 12th.

—Mr. Jacob Verhulst has been elected president of the school board at Sheboygan, Wis., to fill the unexpired term of the late Dr. W. L. Thompson.

—Mr. W. T. Goode of Marlin, Tex., tendered his resignation as secretary of the board on October 7th.

—Mr. Edward Ogden has been appointed attendance officer for the school board of Cart-hage, Mo.

—Mr. William Hutchinson, a former president

of the school board of Reading, Pa., died on October 22nd, at Lebanon, at the age of 82. Mr. Hutchinson served several terms on the school board and was chairman of the building committee which directed the construction of the girls' high school.

—St. Louis, Mo. At the regular monthly meeting of the board in October, Mr. John C. Tobin was elected as president, and Mr. H. F. Fahrenkrog as vice-president.

—Mrs. Sarah E. Hyre, clerk-treasurer of the school board of Cleveland, resigned her position on November first, after a service of twenty years. Mrs. Hyre was a member of the board for some years, and later became clerk-treasurer of the same body.

—Mr. George D. Sutton, Jr., of Springfield, Ill., has accepted a position in the office of the supervising architect of the Chicago board of education.

—Mr. Israel Daniels, secretary of the board of education of Yankton, S. D., was recently ordained as a minister in the Congregational church.

—Ferdinand Phenizy, George C. Glanchard, E. A. Pendleton, and Mrs. Peter B. Wright were elected to the school board of Augusta, Georgia.

—George J. Ryan, president of the New York City board of education was honored at a dinner given November 24th at the Commodore Hotel. The dinner committee consisted of Bernard F. Gimbel, chairman; George Gordon Battle, August Belmont, Barron G. Collier, Martin Conboy, Senator Royal S. Copeland, Robert J. Cuddihy, Richard E. Enright and Rodman Wanamaker. The event was prompted in recognition of the stupendous school building program now in the hands of the board of education.

PERSONAL NEWS OF SUPERINTENDENTS

—Dr. Elias Lieberman has been made principal of the new Thomas Jefferson high school, New York City.

—Arthur B. Morrill has been made principal emeritus of the state normal school at New Haven, Conn. He is succeeded as principal by J. Lawrence Meader.

—Louis P. Benezet, formerly superintendent at Evansville, Indiana, and now filling a similar position at Manchester, N. H., is making a study of the high schools of New York City. This study is being made for the school survey

commission created by the New York City board of education.

—James A. Nugent, who succeeds the late Edward A. Murphy as superintendent of the Jersey City, N. J., schools, brings to his office a splendid record as an educator. He has filled various positions in New York City and at Harrison, N. J. He was born, raised, and educated in Jersey City.

—J. M. Snodgrass of Goshen, Indiana, has gone to Champaign, Ill., to serve in the capacity of supervisor of teaching in the elementary grades.

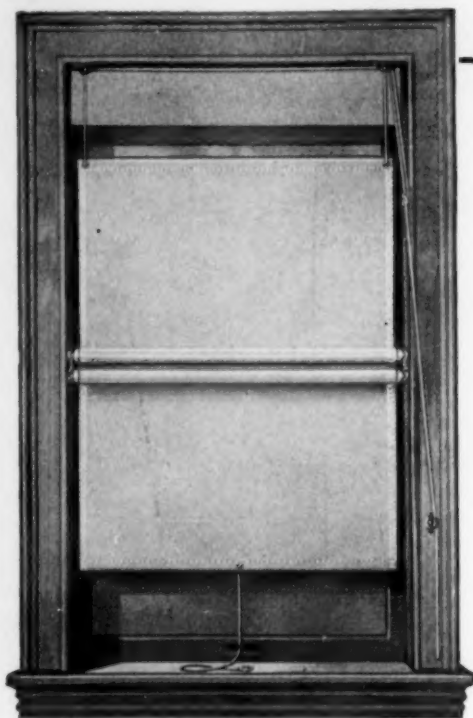
—Dr. E. E. Lewis, superintendent of the Flint, Michigan, schools won high praise at the hands of the Nebraska Schoolmasters' Club, Lincoln, Nebraska, for an address he delivered before that body on the subject of "Personnel Management."

—Superintendent William H. Perry has completed ten years' service at Leominster, Mass. The total cost of the schools for the year 1914 was \$88,357, and for 1923 it was \$225,784, which includes the credits, such as state aid, tuition received, etc., amounting to more than \$30,000, or a net cost to the city of \$193,539; the average cost per pupil when Supt. Perry came was \$36.06 and now it is \$58.29, and according to the statistics of the department of labor last February, the average price level of wages, rents, general cost of living, etc., was 181 per cent more than 10 years ago, and the present cost annually, per pupil, is 161 per cent more now than it was 10 years ago.

—Mr. C. V. Snyder, of Convoys, O., has been appointed as superintendent of the Washington township high school, near Celina.

—Mr. B. J. Burris, formerly state superintendent of instruction for Indiana, resigned on December first, to accept the presidency of the Muncie branch of the Indiana Normal School. Mr. Henry N. Sherwood, of Franklin, elected on the Republican ticket to succeed Mr. Burris, will be appointed to fill the balance of the term which expires March 15th next.

W. A. Bass, superintendent of the Covington, Tennessee, schools, has been appointed state supervisor of high schools, to succeed J. W. Brister, elected president of the West Tennessee normal school. Mr. Bass served as chief clerk of the state department of education from 1919 to 1921.



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—The salary of Mrs. Susan M. Dorsey, superintendent of the Los Angeles, California, schools, has been increased to \$13,000, by a unanimous vote of the board of education.

—William M. Davidson, superintendent of the Pittsburgh, Pa., schools, has been reelected at a salary of \$12,000 a year for four years.

—A. W. Bevers, who was active at Claremore, Oklahoma, is now superintending the schools of Hominy, Oklahoma, at a salary of \$3,800. Hominy is located in the famous Osage county.

—Mr. A. F. Cook has been reelected as superintendent of schools at Hinsdale, Ill. Mr. John Graurud has been elected assistant superintendent.

—Mr. Clarence Orr, of the Villa Grove (Ill.) township high school, has been elected superintendent of schools at Venice. He succeeds S. J. McComis, who served in that position for the past six years.

—Mr. H. J. Alvis, principal of the high school at East St. Louis, Ill., has resigned to accept a position with D. C. Heath & Company. Mr. H. A. Kanzler has been appointed to succeed Mr. Alvis.

—Mr. Thomas C. Blaisdell, of the State Normal School, Slippery Rock, Pa., accompanied by his wife, has departed on a trip around the world. The trip which is the realization of a twenty-year-old dream, is in part the result of a prize awarded by the publishers of Compton's Pictured Encyclopedia in a contest two years ago. The trip includes visits to such alluring places as Hong Kong, Singapore, Rangoon and Calcutta, and Oxford University in England. Mr. and Mrs. Blaisdell will be home in time for the autumn school session opening September 20th, 1925.

—Mr. Frank B. Kline, principal of the Shaw junior high school at Philadelphia, Pa., has been named superintendent of the sixth school district by the committee on elementary schools of the board of education. He succeeds E. W. Adams, who has become principal of the Normal School.

—Mr. G. M. Middleton of Ashland City, Tenn., has been appointed principal of a large school at Ida, La.

—Mr. H. H. Hollenbach, former assistant superintendent of the east side schools at Saginaw, Mich., died suddenly on October 2nd, following an attack of apoplexy. Mr. Hollen-

bach began as a mechanical drawing instructor at Saginaw, working up to the position of vocational director of the schools. From September, 1922 to 1923, he held a similar position at Bay City, resigning in June, 1923, to enter the employ of the Lufkin Rule Company, where he remained until June of the present year.

—Mr. Michael J. Downey, director of evening schools of Boston for the past ten years, has been appointed a member of the board of superintendents. The appointment increases the number of superintendents to six and carries a salary of \$6,000 per annum.

Mr. Downey is a graduate of the Boston Latin School, Boston College, and the Boston Normal School. He specialized in educational work at Harvard Summer School and Columbia University and was given the degree of master of arts by Boston College. He became assistant director of evening and continuation schools in 1910, and was appointed director in the following year. In 1917 he became acting principal of the Continuation School.

—Mr. W. N. Black, for the past three years principal of the township high school at Georgetown, Ill., has been elected superintendent of schools under a revised plan of organization. Under the new plan, Mr. Black will be principal of the high school and will have charge of the supervision of Dist. 177 and the city schools.

The new organization provides the same courses and organization for both the country and city schools. It also offers high school advantages to country pupils on the same basis as city pupils. District 177 comprises five country schools, and a new \$60,000 grade school to be completed in January, 1925.

—A live schoolmasters' club has been organized in the northcentral part of Iowa and plans have been completed for the first meeting of the year. The meetings which have an educational aspect in the speeches and problems discussed, also provide for wholesome entertainment. Mr. G. D. Eaton, Clarion, Ia., is president, and Mr. S. W. Christian, of Plymouth, is vice-president.

—Inspector John S. Hall of the Detroit, Mich., board of education recently charged that Superintendent Frank Cody was on two payrolls. The statement was challenged by Cody, who proved that he merely received his expenses while serving on the state board. The same

charge was made against Prof. A. B. Moehlman. The latter proved that he had received extra compensation for summer institute work.

—At a recent meeting of the Schoolmasters' Club of Cincinnati, Ohio, it was the judgment that Ohio's system of taxation was obsolete and that taxes should be levied on profits and income.

—Frank B. Dyer, former superintendent at Cincinnati, Ohio, is confined to a hospital with an attack of neuritis. His lecture courses have been cancelled.

—Superintendent John P. Graham of Maury County, Tennessee, makes a plea for better school records. He holds that record keeping is one of the outstanding weaknesses of the public school system. He says: "We place our money in the bank. We demand that the bank officials keep very accurate records regarding this. If it is to go out of the bank, an accurate record of the transaction is demanded. School authorities should keep more accurate records regarding pupils. It is just as important for school authorities to keep records of students' work in school as it is for bank officials to keep records of interest on deposits, for the progress students make in our schools is the interest the public received on money invested in public schools."

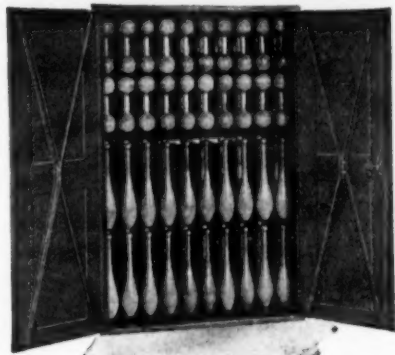
—The New York City board of education has issued a report on the educational radio program carried on in the schools. This program embodied some fifty addresses delivered by superintendents, board members, and cooperating agencies, dealing with the financial and building problems, the questions of health, intelligence tests, employment and general school information designed to interest the public.

—Livingston, Tex. The sixty-minute period plan has been introduced in the high school this year. The first part of the period is given to more or less formal recitation, while the latter part comprises directed or supervised study.

In the elementary schools, a differentiated plan has been introduced as an experiment. Under the plan, the B class of each grade is required to complete the minimum essentials for promotion, while the A section is permitted to do more intensive and extensive work in the same field.

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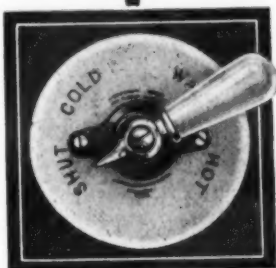
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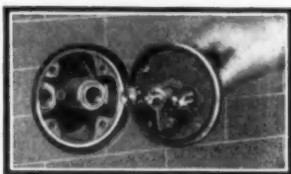


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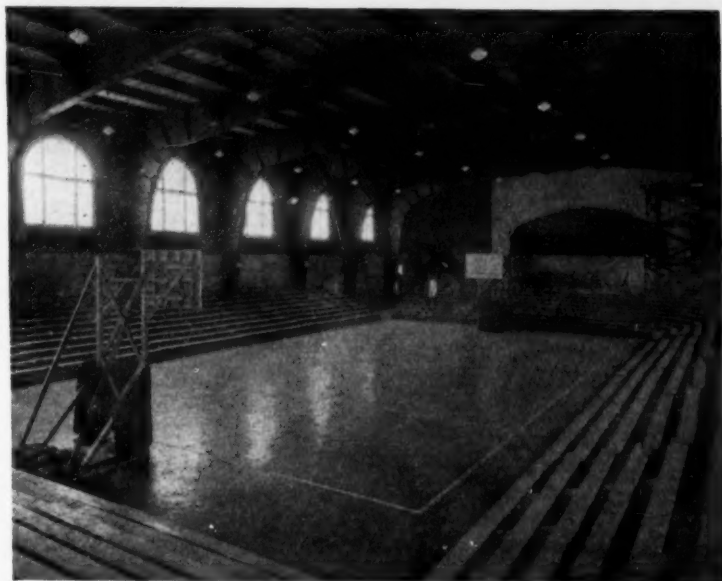
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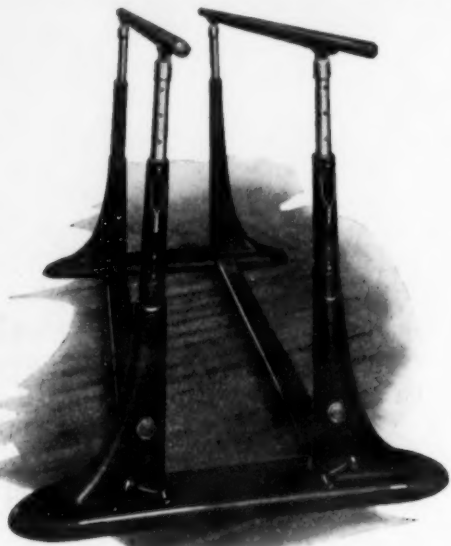
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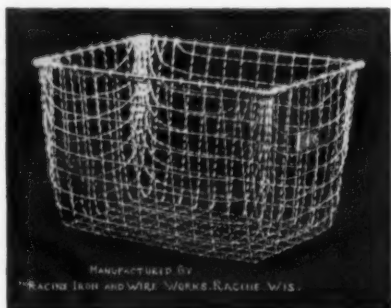
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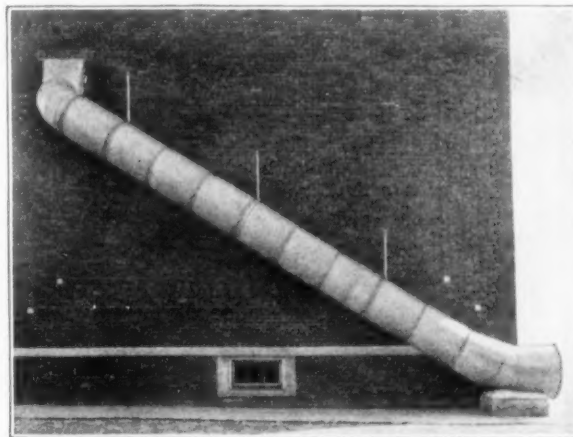
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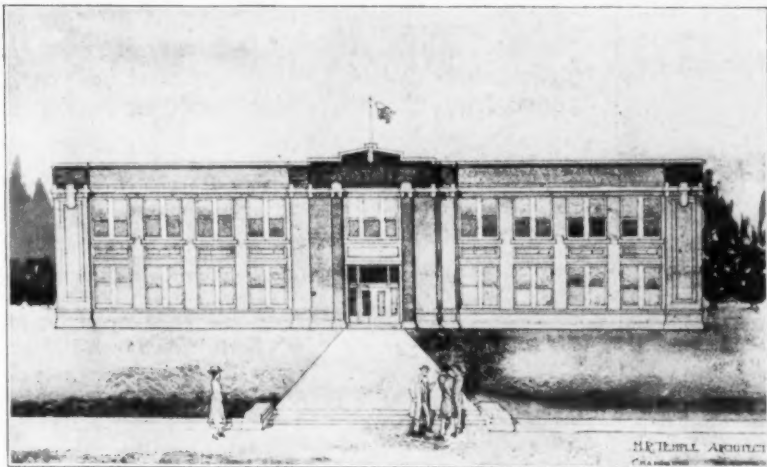


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TEACHERS AND ADMINISTRATION

—Lewiston, Ida. The school board has renewed a rule in force for several years, giving teachers ten days' sick leave each year on full pay. Not more than five days may be taken in any one semester.

—Minneapolis, Minn. The school board has adopted a recommendation providing for an amendment of the rule governing the residence of employees of the schools. The rule which became effective in June last, now provides that employees actually owning homes outside of Hennepin County, or who secured employment in the city schools in order to live with their families, shall be exempted from the operation of the residence rule. All persons coming into the Minneapolis schools as employees after the above date, must be residents of Hennepin.

—A tablet in memory of the late Miss Addie D. Williams was unveiled and dedicated at public school 159, Brooklyn, N. Y. She had served as principal for many years.

—At the funeral of Mary Wiedman, aged 85, a former school teacher of Chicago, six of her former pupils, all prominent business men, served as pallbearers.

—The Idaho Teachers' Association under the direction of President C. D. Brack has inaugurated a membership campaign which is promoted through a series of letters written to teachers and superintendents.

The teacher's dollar buys less now than it did in 1913, is contended by Superintendent William H. Holmes of Mount Vernon, N. Y. Concerning teachers' salaries Supt. Holmes reported that in 1913 the average for the country was \$515 and in 1920 it was \$837. The purchasing power of \$837 in 1920 as compared with \$515 in 1913 was but \$418, a decrease of practically \$100.

—A home for retired teachers is being pro-

jected by the federation of teachers' associations of New York City. It is suggested that each teacher be taxed one-tenth of one per cent of her salary, and by this method it is expected to raise \$100,000 in the first year.

—The league of classroom teachers of the Wisconsin Teachers' Association urges greater security in position. It was stated from the floor of the meeting that some teachers lose their jobs because they are too free in expressing political opinions differing from those of the county superintendent or the principal. Some are quietly dismissed because their temperament clashes with that of the principal, it was charged, and others are dismissed to make room for favorites.

—The supreme court of New York has affirmed the decision of the lower court denying the application of Edith E. Armitage for an order compelling the board of education of Auburn to increase her salary. The circumstances leading to the suit were as follows: Miss Armitage, a teacher in one of the Auburn grade schools, brought action to compel the board of education to fix her salary for the past school year at \$1,600 instead of \$1,475. She contended that under the provisions of chapter 851 of the laws of 1923, amending the teachers' salary law, when read in connection with section 888 of the education law, relating to salaries and increments, the board of education was bound to place her salary at the maximum under the new schedule required by the recent amendment, since she had been in service of the Auburn schools for more than eight years. The supreme court held that the legislation providing for a minimum teachers' salary beginning in 1919 was not to be given a retroactive effect.

New York's Sabbatical Year Plan

A sabbatical year plan has been proposed to the New York City board of education by the board of superintendents. It provides for seven months' absence for every ten years of service. During the leave the teacher is to receive full pay less the salary of a substitute. The leaves are to be limited to a certain number each year.

The teachers object to the salary feature. They contend that the absent teacher should receive two-thirds' salary, the balance to go to the substitute teacher.

The plan also provides that the privilege "shall be granted to the most deserving." The teachers believe that those longest in the service should be recognized first. It will remain with the board of education to adopt the plan and to consider the changes proposed.

TEACHERS' SALARIES

—Abolition of the present great number of teachers' salary schedules and the substitution of a single schedule has been recommended to the New York City branch of the National Council of Administrative Women in Education by the subcommittee on 6B schools of the committee on administrative problems. The committee directs attention to the condition resulting from the higher schedules for higher positions, namely, the luring of the best teachers from the lower grades.

The committee points out that since the advent of the junior high school, there has been a marked exodus of progressive teachers from the six-year schools. If this condition persists it is predicted that in a few years the best teachers will have left the six-year school, or will have gone into the work of special classes offering higher salaries.

The committee points out that in some western cities, a similar exodus of teachers caused such a condition that the school authorities were obliged to take measures for retaining good teachers. A study of the problem led to the adoption of the so-called single salary schedule. This schedule is now in use in more than 100 cities and other cities are using a schedule somewhat similar. The schedule does not give all teachers the same salary but it does provide that teachers with the same training, experience and attainments shall receive the same salary. Teachers who show increased attainments through long experience or additional study are given increases in salary. The committee urges that a careful study of the single salary schedule be made in order that a solution may be found for the teacher problem in this department, and that the six-year school be recognized as an important part of the educational system.

—The high school teachers of St. Louis, Mo., are urging an increase in salary. The Post-Dispatch of that city believes that "the board of

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education has erred in devoting a large part of its resources to the construction of new buildings while neglecting the needs of the teachers." It further says: "Taking ten leading cities, including St. Louis, the figures show that the cost of education per pupil in Rochester, N. Y., is \$231.77, while the cost in St. Louis is but \$110.71, nine other cities named having a higher cost. Similarly, taking ten leading cities, Detroit has a bonded school indebtedness of \$31,548,624, or \$241 per pupil. St. Louis' school bonded indebtedness is only \$1,275,000, or \$26 per pupil. And nine other cities exceed St. Louis in this class of bonded indebtedness.

—Boston, Mass. The board has ordered that a representative from each of the eleven local school organizations be appointed to organize as a council, and to make a careful study of the salary schedules in Boston and in other large cities of the country. The committee is to submit the results of its study to the school board, with special recommendations as to the best manner in which the present schedule may be readjusted equitably and scientifically.

—Washington, D. C. The salary schedule for school employees has been revised as follows: First assistant superintendents, minimum, \$5,000; number of increments, five; amount of increment, \$200; maximum salary, \$6,000. The schedule in its entirety was printed in the July number of the Journal.

SCHOOL HYGIENE AND SANITATION

The New York state health department has published a pamphlet showing the results obtained with the Schick test. Antitoxin immunization against diphtheria, and the diphtheria prevention work carried on in New York City are the subject reported on in pamphlets issued by the American Medical Association.

—At Tacoma, Washington, the schools were closed a month in order to combat the spread of infantile paralysis. The Times in commenting on the situation said: "Perhaps the closing of the schools has nothing to do with the stopping of the disease, condition, hysteria, or whatever it is. But, the schools have been closed for more than two weeks; they were closed as a precautionary measure, and equal caution should be used in reopening them. Nothing is to be gained by hasty action, and the cost may be

high. Better make certain before deciding so important a question."

—A boy of working age, healthy enough to come into contact with his schoolmates is healthy enough to work, according to a recent opinion of Magistrate E. A. Smith in the New York City Municipal Term Court.

The ruling which in effect, makes negative a contrary ruling of the city board of health, arose in the case of Ernest Altimora, 14, to whom employment papers had been denied by the board of health on the ground that his tonsils should receive attention before he could go to work. The magistrate argued that the health board should not permit a boy in school who is too ill to work, and he refused to pass sentence on the father for refusal to send the boy to school under the conditions.

—That Iowa school children grow healthier from year to year is the contention of the State Board of Health in a recent report on the subject. The health board reported that the number of physical defects in 243 city schools and 2,592 rural schools had decreased greatly in the last five-year period in every respect except that of defective teeth. The average decrease was nearly fifty per cent. The improvement has been attributed to the promotion of health crusades; to inspections by school nurses; to examinations by school physicians and to the correction of remedial defects by private physicians.

—Oswego, N. Y. The school physician recently conducted Schick tests in the schools coincident with the opening of the new school term. The value of these tests has been proven in the local schools by the fact that for three years there has not been a case of diphtheria among school children.

—Mr. Lewis H. Carris, managing director of the National Committee for the Prevention of Blindness, speaking at the annual meeting of the American Public Health Association in Detroit, Mich., commented on exaggerated statements concerning the amount of defective vision among school children. He declared that "any impression that the nation is rapidly going blind, or that over half of the school children need to wear glasses is obviously an exaggeration." The true condition is that one-eighth of the children in school suffer from eye diseases or visual de-

fects, many of which may be removed by properly fitted glasses or by medical attention.

Speaking on the responsibilities of boards of health and boards of education in detecting and correcting vision defects, Mr. Carris pointed to the need of determining to what extent defects in vision and diseased eye conditions may be discovered by examinations conducted in schools. He deplored the lack of a definite standard for making eye examinations and announced a forthcoming study looking toward the development of such standards. This study will be made jointly by a committee of the National Education Association and the American Medical Association, with the cooperation of the National Committee for the Prevention of Blindness.

—Gas City, Ind. The prevalence of diphtheria has caused the school authorities to begin Schick tests of all pupils with a view of determining those susceptible to the disease. Tests of children were made in each case where the parent had given written consent.

—Richwood, O. The school board has adopted a resolution recommending that children who have not been vaccinated in the last ten years be given this preventive treatment.

—The Schick test for determining diphtheria susceptibility was given in the schools at Anna, Ill., during the week of October 20th. The test which was made without cost, was performed only with the written consent of the parent or guardian. On the whole, parents and physicians cooperated with the schools in getting the tests under way.

—The school board of St. Johns, Mich., has employed a school nurse.

—Dr. Robert B. Brown has been appointed medical inspector at Waynesboro, Pa.

—St. Peter, Minn. The school board has been asked to approve a recommendation providing that children between the ages of 8 and 16 years be given the iodine treatment for goiter.

—In an injunction suit brought against the school board of Cardington, O., to restrain the board from enforcing compulsory vaccination, the court at Mt. Gilead has upheld the constitutionality of section 7686 of the Ohio school laws. The court held that the Cardington board was clearly within "its discretionary rights" in excluding pupils who failed to comply with its vaccination order.

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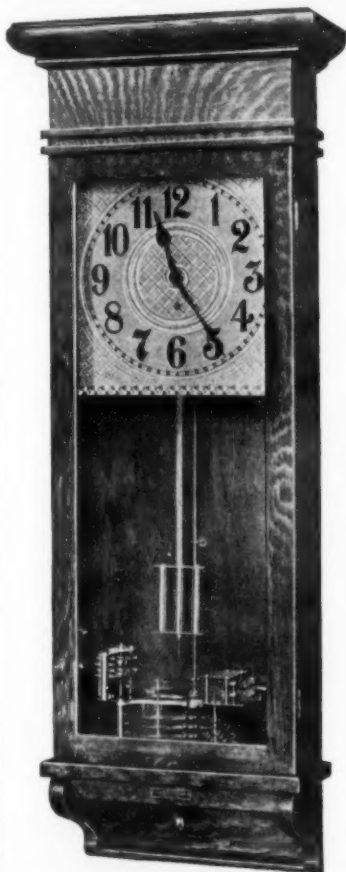
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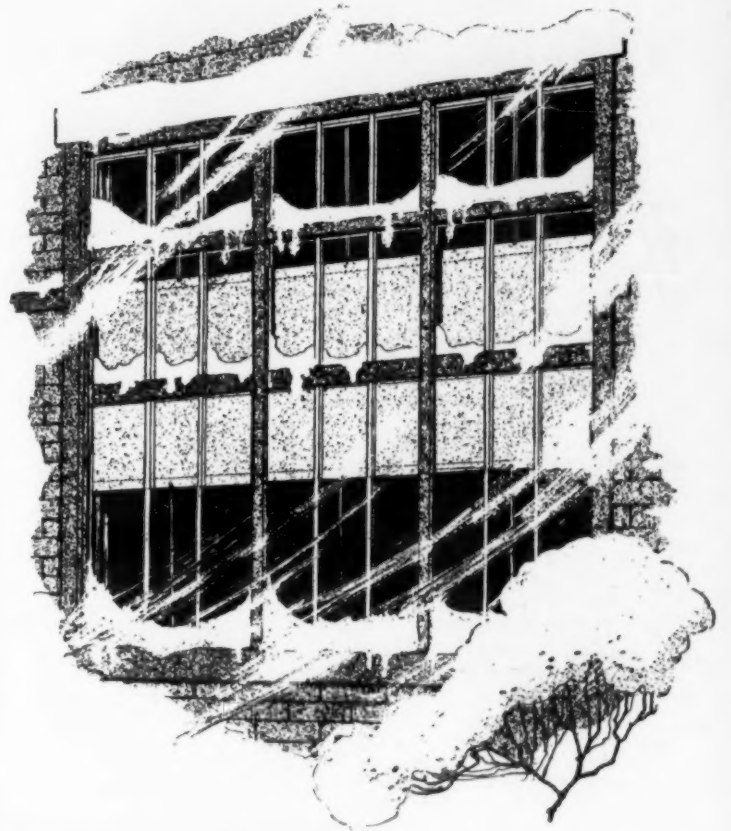
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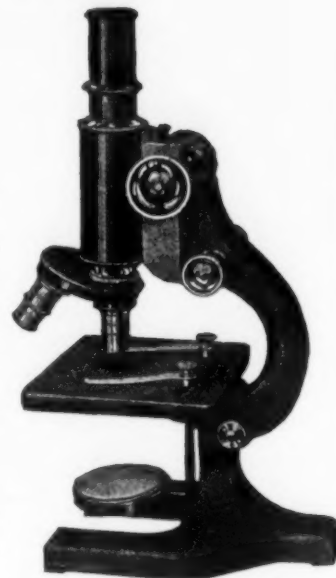
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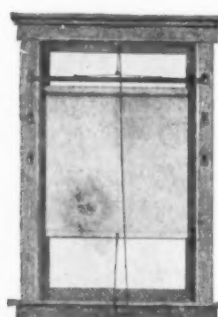
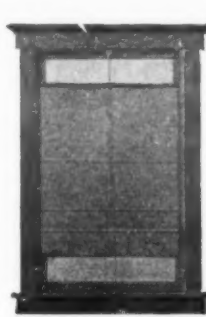
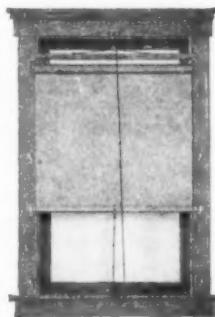


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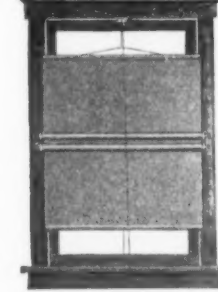
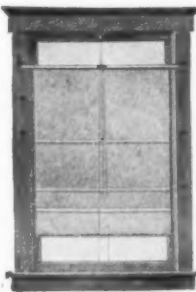
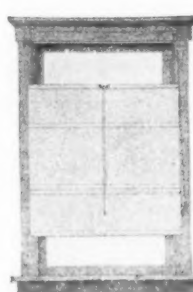
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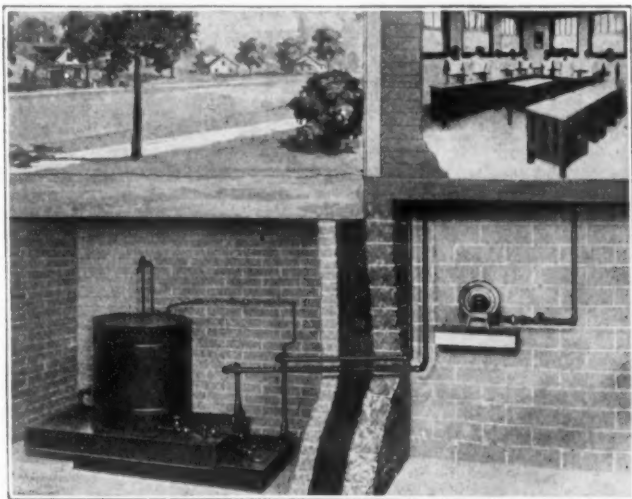
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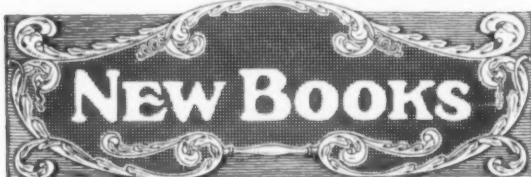
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Edited by M. V. O'Shea. Cloth, 516 pages. The Children's Foundation, Valparaiso, Ind.

A study of present-day knowledge concerning child nature and the promotion of the education and well-being of children.

Fungi and Human Affairs

By W. A. McCubbin. Cloth, 116 pages, illustrated. Price, \$1. World Book Co., Yonkers-on-Hudson, New York.

Fungi and their minute forms, bacteria, have an influence upon human life which even the average well-informed man does not appreciate. Most of us think of them simply as edible mushrooms or as causes of troublesome plant diseases and overlook their immense economic and human importance, to say nothing of their nature, cause, growth, etc.

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Virgil's Aeneid and Ovid's Metamorphoses

Edited by J. B. Greenough, G. L. Kittredge and Thornton Jenkins. Cloth, 167 pages. Price, \$1.92. Ginn and Company, Boston, New York, Chicago.

This is a present day revision of a text which the reviewer studied as a boy and which he greatly admires for its scholarship and teaching value. It may be questioned whether the volume would not gain in its appeal to the serious student of the epic if the excessive illustrations were reduced in number by the omission of some which are clearly not adapted to the puellisque.

Picture-Story Reading Lessons

By Nila B. Smith and Stuart A. Courtes. Series I. Examination outfit. Price, \$1.80. World Book Co., Yonkers-on-Hudson, New York.

This material is a complete method for beginning the teaching of reading. It makes use of an inclusive group of principles in teaching and of a rather elaborate set of materials—(a) lesson pads, (b) a story book pad, (c) a dictionary, (d) labels, (e) a teacher's manual, and (f) a container—but it is after all quite simple in its central idea and use. It is based on the idea of having children cut out and paste up story-telling pictures and by an ingenious use of a picture-word dictionary, directions and sentence labels, to learn the function of reading and to actually read with purpose and understanding. The material has been tried out in Detroit with ten thousand children and has been carefully checked by standard test methods for interest, development of skill, etc.

Our Playhouse

By Ella Victoria Dobbs. Illustrated. Cloth, 125 pages. Rand McNally & Co.

This industrial reader for the first grade proceeds on the basis that the building of a playhouse or doll house is a project which is of the strongest possible child interest and offers the most natural means of introducing children to the world of materials, tools, and industry. While house building and furnishing projects are of great play value, they correlate with reading, measuring, counting, and other first grade activities and teach color, proportion, and construction. The book is fully illustrated to fascinate the child mind in planning and building a play or doll house. Incidentally there is

considerable information and a broad vocabulary.

Cross English Test

By E. A. Cross. Forms A, B, C. Specimen set, \$0.25. World Book Co., Yonkers-on-Hudson, New York.

This test is designed for high school seniors and college freshmen and attempts to measure their ability in correct spelling, pronunciation, sentence construction, punctuation, verb forms, pronoun forms, idiomatic expressions, and common faulty colloquialisms in sentences. The test has been carefully standardized and correlated. Complete directions, keys and class record forms are provided.

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By Ray Hughes Whitbeck. Cloth, 608 pages, illustrated. Price, \$1.72. American Book Company, Chicago, Ill.

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By Henry Harap. Cloth, 360 pages. The Macmillan Company, New York.

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An Army Boy of the Sixties

By Major Alson B. Ostrander. Cloth, 242 pages, illustrated. Price, \$1.20. World Book Co., Yonkers, N. Y.

Authorities on military history have frequently been quoted as saying that the Civil War was fought and won by boys. A debate in Congress a few years ago gave some startling figures as to the number of boys below twenty who shouldered a gun and performed a man's job.

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Educational Tests and Measurements

W. S. Monroe, J. C. de Voss and F. J. Kelly. Cloth, 548 pages. Price, \$2.40. Houghton Mifflin Co., Boston.

This book is a complete revision of the authors' earlier book, issued in 1917, and indicates in its contents the rapid growth which has taken place in testing and tests during the last seven years. The writers have not departed from their former plan of making the book an introductory text, and have limited themselves to clear, simple statements of the nature and use of the most widely accepted tests in the common subjects. The most helpful additions to the book are new chapters on the construction of tests, the improvement of examinations, and the supervisory uses of tests.

The common sense attitude of the entire work should appeal to students and practical teachers, particularly the older, skeptical women and men who need to be convinced of the genuine value of tests.

Junior Mathematics

By Ernst R. Breslich. Book One. Cloth, 147 pages, illustrated. The Macmillan Co., New York.

This book has been developed under a practical high school situation with the aid of a university school of education equipped with ex-

ceptional research facilities. It is intended for seventh grade work and is based upon the newest conceptions of the aims of mathematical study in the transitional years of the junior high school.

Older men in the field of education, who have a clear recollection of the arithmetic taught in the rural schools of the seventies and eighties will recognize in this book much material which they studied under the head of mensuration. Only a few moments' recollection will emphasize the great advance made in the material, the methods, the aims, and the relation of the whole to life and to child abilities.

The book is entirely practical in its viewpoint and scope. It introduces the pupil to simple algebraic and plane geometric principles—not from the standpoint of algebra or geometry—but for the purpose of illustrating advanced arithmetical principles and operations, of providing a bridge to lead the student into secondary mathematics, and of inculcating sound mathematical thinking.

FOURTH CONFERENCE OF RHODE ISLAND SCHOOL BOARDS

Members of school boards from all parts of Rhode Island assembled in Providence on Friday, November 21st, 1924, the occasion being the fourth semi-annual conference of the Rhode Island Association of Public School Officials. The meetings of the combined school committees of the state were held in the assembly hall of the Rhode Island College of Education, and included morning and afternoon sessions in addition to a mid-day luncheon.

Under the direction of Professor Elmer S. Hosmer, the musical clubs of the College of Education furnished several pleasing selections as the first number on the program of the conference. President W. Thomas Bone, clerk of the Narragansett School Board, formally opened the exercises of the day with an address of welcome. "We are engaged in the greatest work of the nation; namely, the education of the child," he asserted. Continuing, he said, "We often hear people tell of the schools of the 'good old days' of fifty years ago, and yet those who were alive at that time know full well that the schools of those days were miserable compared with the wonderful schools of the present time. During the past fifty years the scope of educa-

tion has expanded with extraordinary rapidity. This remarkable growth of the field of education should serve as an inspiration to all of us, who, as members of our respective school boards, have been selected to carry on the work of this great cause. The child is the greatest asset of the nation and his training is the nation's greatest business. In accepting our election as school committee members we place ourselves under certain definite obligations. It is our duty to demand proper school buildings, properly equipped for the youth of our communities. Another of our important tasks is to insist that our schools stand for one hundred per cent Americanism."

In his message to the members of school boards of the state, Dr. Walter E. Ranger, state commissioner of education, called attention to the fact that the people have placed upon school committees the responsibility of seeing that the schools prosper and have sufficient funds to make them efficient. "You should provide for the education of all the children and you should not be satisfied until every child in your community has the opportunity to avail himself of the education you have provided for him," said Commissioner Ranger. "Education is the fourth necessity of life, recognized by law. The public school organization is a permanent organization like our courts and our general assembly. As school officials you should always have in mind the continuity of the school organization. Building programs, courses of study, standards of teachers and the like come slowly, usually after a long period of years. A school organization does not meet the need of the times, unless it cares for the need with vision. We must think in terms of the future. If you desire to have future recognition of your schools, see to it that your schools have proper publicity today."

At the conclusion of Dr. Ranger's address, Mrs. Charles H. Remington, a member of the East Providence school board, led a discussion upon the topic "The Relation of the School Committee to Its Community." "As long as the election of our school boards is tied up with political elections there is bound to be more or less politics in the schools," said Mrs. Remington. "Our endeavor should be to keep bad politics out of the schools. It is to the community that we must look for the funds with

(Concluded on Page 127)

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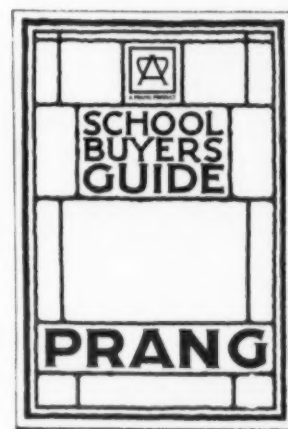
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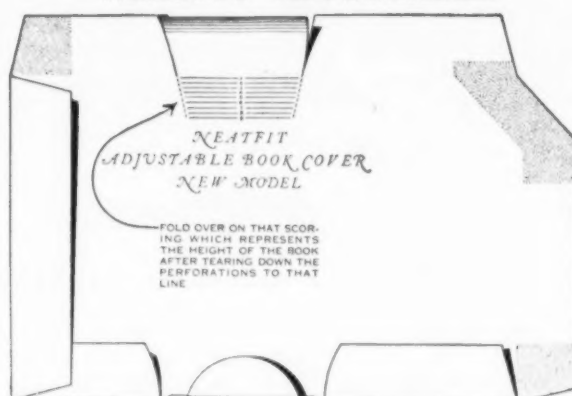
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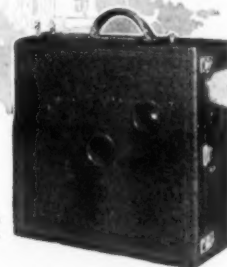
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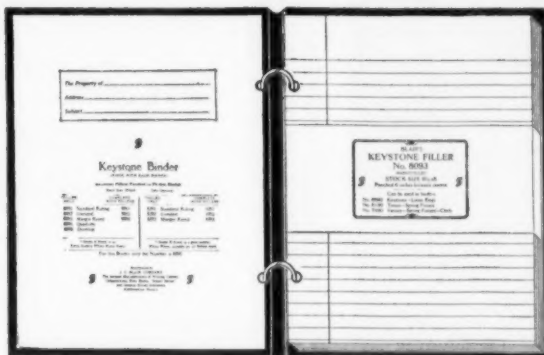
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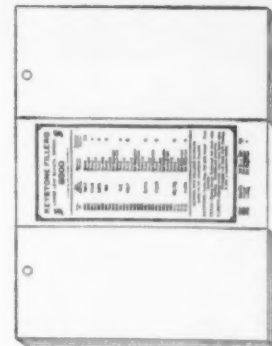
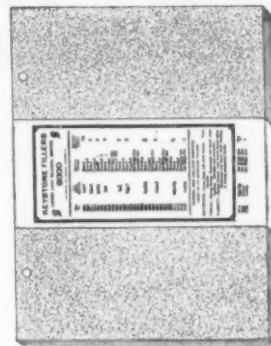
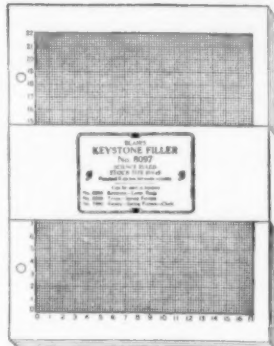
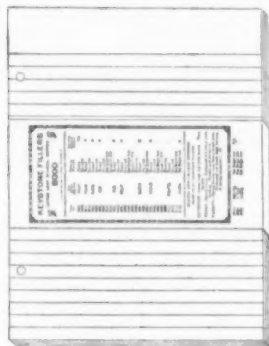
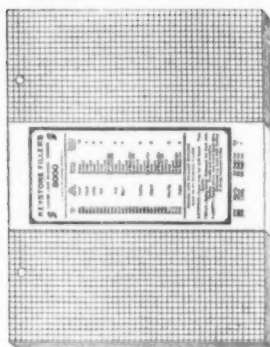
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(Concluded from Page 124)

which to maintain our schools. We can have no better schools than the voters give us. It is our duty, then, to educate the community to its educational needs. Let us mingle with our people and know them better and I am sure that we shall have less difficulty in securing the money necessary to insure the efficiency of our educational institutions."

Mr. Isaac O. Winslow, superintendent of the Providence schools, was the leader of the second discussion, the subject of which was "The Adjustment of Teachers' Salaries." "The general question of the adjustment of teachers' salaries involves three or four specific questions of importance," said Superintendent Winslow. "First, shall there be a flat salary? If teachers' salaries are regulated on the basis of academic attainment only it may happen that the kindergarten teacher is drawing a higher wage than the instructor in the high school. Such a practice has not been widely adopted. It is defended on the ground that teachers of young children should have as good training as teachers of older children. Moreover, such an arrangement stimulates teachers to become better equipped and better educated. The objection to this flat salary plan is that academic attainment is not a reliable method of judging a teacher's ability. A relatively poor teacher with academic degrees, under this plan, may receive more than an excellent teacher with fewer degrees. Does it require as much ability to teach little children as it does to instruct older children? Certainly little children should have most excellent teachers. However, some of these teachers might be unable to instruct children of high school age.

"Second, shall women have the same salaries as men? This argument appeals to anyone on the basis of justice. It sounds fair, democratic and American. The difficulty in operating this plan is that certain conditions have to be contended with. It is true that a larger proportion of women teachers do better work than the same proportion of men teachers. Therefore, it is to be expected that a large proportion of our teachers shall be women. However, it is generally held in every school system that there should be some men. The market price of the services of men in work of the kind in question

is higher than the market price for the teaching services of women. In fact, it is impossible to find excellent men teachers for the same price that must be paid for excellent women teachers. We must either secure inferior men and pay equal salaries, or we must pay larger salaries and get superior men instructors.

"Third, what shall be the annual increase after teachers are appointed? In all salary schedules it is customary to have a minimum and a maximum. Whether or not this increase should be automatic seems to be a sore problem, one of the worst problems with which superintendents have to contend. The scientific method of procedure would be to determine annually the teacher's qualifications for a salary increase. A very few cities are attempting to rate and classify their teachers in this way. Such a scheme involves embarrassment for those who act as judges and dissatisfaction on the part of some of the teachers who are rated. Some cities annually give academic examinations and rate their teachers on the basis of their achievement in these examinations. Some cities allow extra emolument for advanced degrees, and bonuses for summer and other extension courses. Most cities have automatic salary increases, conditioned upon the recommendation of the superintendent and other specified school officials.

"It is not as easy to discharge a teacher as it is to discharge a clerk in a department store. Very justly the law gives greater protection to the profession of teaching. If a teacher is very bad indeed he may be discharged; but between that point and the best teacher there is a very wide chasm. The authority to discharge only the teacher who is very bad is not sufficient. Just as long as teachers can snap their fingers at superior authority some few of them will take advantage of that fact. Fortunately there is the unconscious feeling on the part of most teachers that good work will bring promotion sooner or later."

"The Junior High School in Rhode Island," was the first subject discussed at the afternoon session. As leader of this discussion, Professor Frank E. Waite of the Rhode Island College of Education, pointed out that thirteen cities and towns in the state have, or propose to have, such schools. To have a good junior high school the grades included should have a total mem-

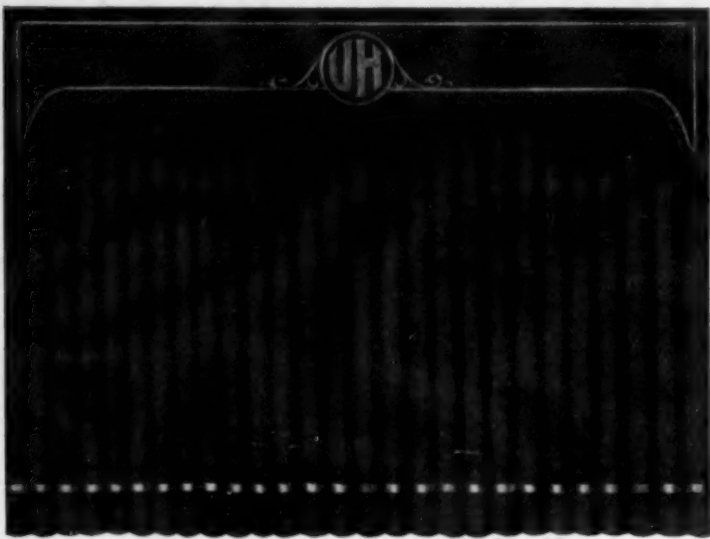
bership of at least three hundred, declared Professor Waite. Otherwise the plan is too expensive, he said.

The principal address of the afternoon was delivered by Dr. Augustus O. Thomas, commissioner of education for the state of Maine. In part, Dr. Thomas spoke as follows: "As members of school boards you are creatures of election. Wherever school boards are elected on a party ticket they are placed in the category of politics. Candidates for school committees should be elected on a separate ballot and without a party label. In Maine, school officials are elected at the March meeting and the party is not usually in evidence at all. This, in a large measure, takes the school system out of the field of politics.

"As members of school boards each one of you has become a part of an organization. You must take the consensus of opinion of your respective board and abide by this decision. All the members of a school committee have equal privileges. As a member of a school board you must cooperate with the other members of your committee. The school committee member has no right to go to a teacher as a member of the board. The only time that a member can act as a member is when the board is in session. The individual on the board outside of the board meeting has no more right than a person not on the board, unless delegated on a special mission by the board.

"Don't keep your ear too close to the ground; when you do this you get into the realm of the politician. You must have the community reaching up to you a little. The school superintendent must not go too far ahead of you and you must not go too far ahead of your people. Although it is not wise to recommend too radical a program of improvement at once, as a member of the educational committee of your community it is your duty to recommend the best plan according to your judgment.

"Keep your community with you by constantly giving them the facts regarding your schools. Someone has tersely expressed it, 'Not consulted is insulted.' The day of secret diplomacy has gone and the time has arrived when the publicity factor is a most important one. Keep your community fully informed of what you are doing."



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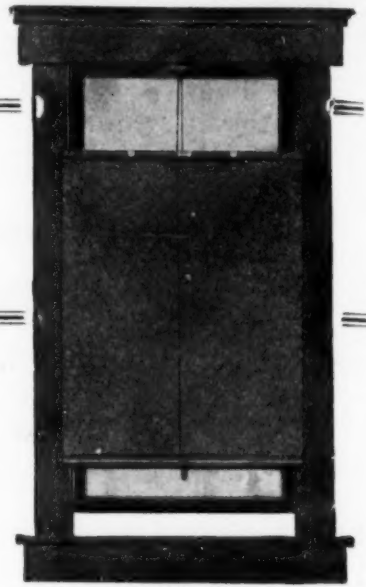
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PUBLICATIONS RECEIVED

Report of the Institute and Survey of the Public Schools of Blakely Borough, Peckville, Pa., for the Year 1923-1924. Conducted by C. J. Naegle, department of education of the State Normal School, East Stroudsburg, Pa. The survey was undertaken at the request of Supt. H. B. Anthony and its purpose was to substitute some form of teacher training which would be productive of more beneficial results to the teachers, and through them to the children in the district, than the traditional type of institute. In the working out of the program, five objectives were adopted as follows: First, a study of the principles of individual intelligence testing; second, the use of group intelligence tests; third, the measurement of reading ability for pupils above the first grade; fourth, the measurement of arithmetical ability of pupils in grades four to eight; fifth, the measurement of composition work in grades four to twelve. It is proposed to use the information obtained from the tests as a basis for classifying pupils in making up various sections, in grading the pupils, and eventually in modifying the course for some of the grades.

Annual Report of the Business Agent of the Public Schools of Boston, Mass., for the Financial Year February 1st, 1923 to January 31st, 1924. Wm. T. Keough, business agent. The report contains the financial statement, the balance remaining at the end of the year, appropriations for new buildings, lands and yards, a summary of appropriations, credits and transfers for general school purposes, alterations and repairs, new buildings, lands and yards, and statistics covering the cost of administration, supervision, and general charges. There are a number of tables showing the total and per capita costs of schools and activities, the cost for administration and supervision.

Regulations of the National Board of Fire Underwriters for the Installation of Blower and Exhaust Systems. The pamphlet outlines the present general rules for safeguarding all types of blower systems, as well as additional special requirements for special industries or processes to be found in various other board regulations.

Certification of Teachers in Louisiana. A new plan of certification of teachers, adopted by the state board of education of Louisiana, in-

cluding the rules governing examinations for teachers' certificates.

Educational Diagnosis. Ruth Streitz. Research Circular No. 27, June, 1924, University of Illinois Bulletin, Urbana. It is pointed out that pupils present great variations in difficulties and needs for instruction so that a mere mechanical arrangement for tabulating scores or representing them graphically will not lead to effective diagnosis. A teacher who wishes to become an efficient diagnostician, must do more than apply the mechanical procedure to the scores yielded by a standardized test. She must seek other information than that recorded in order to really determine a pupil's instructional needs.

Administration of Child Labor Laws. Part V, Standards Applicable to the Administration of Employment-Certificate Systems. By Helen S. Woodbury. Bureau Publication No. 133, Children's Bureau, U. S. Department of Labor, Washington, D. C. The report has for its purpose the discussion of the best methods for enforcing child labor laws, more particularly the employment-certificate systems. In focusing attention on the methods of enforcing legal standards, an effort has been made to point the way toward the establishment of principles of good administration and the standardization of methods of enforcing child labor laws. As differences in standards involve differences in methods of enforcement, an effort has been made to describe clearly the essential features for the enforcement of each standard. The findings are applicable to all states so far as they have legal standards for the employment of children.

Teachers' Retirement Allowances Bulletin. By the Research Department of the National Education Association, Washington, D. C. A valuable contribution to the information available on teachers' pensions. A splendid example of the work which the association is doing to better the financial position of the teachers of the United States.

Regulations of the National Board of Fire Underwriters for the Installation and Operation of Acetylene Equipment. Recommendations of the National Fire Protection Association for the year 1924. Contains the regulations for the installation and operation of acetylene generators,

and the use of acetylene for lighting, welding, cutting and heating, and the storage of calcium carbide.

Thyroid Enlargement Among Minnesota School Children. By Robert Olesen and Taliaferro Clark. Vol. 39, No. 41, October, 1924, of the U. S. Public Health Reports, issued by the treasury department at Washington. Contains the results of a study of prevalence as indicated by a survey of 4,061 children in thirteen localities. The tables show the percentage of children observed to have goiter, the sex incidence of each degree in the state, percentage of children of each sex and age, the number of children examined and the number with thyroid enlargement by sex, age and locality. The results of the survey plainly indicated a considerable prevalence of thyroid enlargement among school children of the communities studied. With so decided an amount of cases among the children, it appears an ample incentive for the institution of iodine prophylaxis.

Schick Reaction and Diphtheria Toxin-Antitoxin: Their Characteristics and the Results of Their Use. By William H. Park, M. D. Reprinted from transactions of the last annual meeting of the American Child Hygiene Association. Issued by the J. B. Lyon Co., Albany, N. Y.

Toxin-Antitoxin Immunization Against Diphtheria. By William H. Park, M. D. Reprinted from the Journal of the American Medical Association, Chicago. Describes the use of toxin by antitoxin for active immunization, the practical application of diphtheria toxin-antitoxin, results of test and immunizing effect of the injections in infants and small children.

Diphtheria Prevention Work in the Public Schools of New York City. By Abraham Zingher, M. D. Reprinted from the Journal of the American Medical Association, Sept. 10, 1921. Issued by the Association at Chicago, Ill. The pamphlet discusses the inauguration of preventive work in the school, the conduct of the Schick test, dilutions for the Schick test and for the control test, reading of reactions and the first injection of antitoxin, mixtures and doses, retests of children receiving injections of the serum, certificates of immunity, and results of the test in 44 schools tested by the doctors and nurses.

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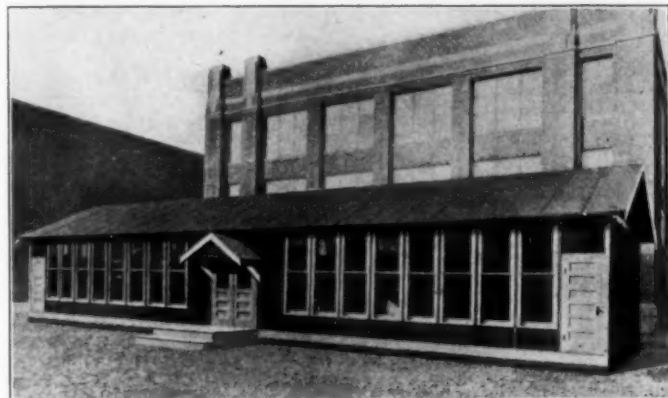
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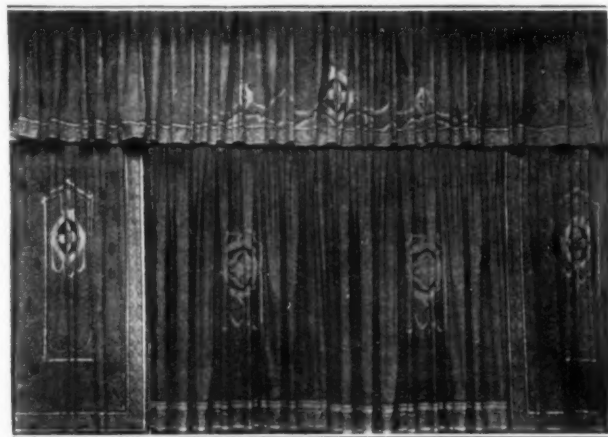
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WHAT ABOUT SCHOOL BOND ELECTIONS?

(Continued from Page 34)

Successful Bond Campaigns Elsewhere

Greensburg, Pa. The \$600,000 school bond issue passed with a safe majority.

Augusta, Ga. An election for school bonds amounting to \$500,000 was carried by a majority of 1,500. The program includes a \$300,000 high school, two rural schools costing \$25,000 each.

Camas, Washington. An increase of 10 mills for school purposes was approved by an 8 to 1 vote.

Eau Claire, Wis. A school bond issue calling for \$500,000 was carried by a 2 to 1 vote.

Lincoln, Neb. The school board's appeal to the taxpayers for a \$3,000,000 bond issue to be devoted to the building of new schools was carried on November 4th by a handsome majority.

—Omaha, Neb. A \$2,500,000 school bond issue was carried by a 2 to 1 vote. This makes a total for the present administration of \$8,500,000 to carry out a comprehensive school building program.

The following communities have invited bids on school bonds: Ashtabula County, A., (P. O. Jefferson) \$200,000; Johnson City, Tenn., \$136,000; Lynchburg, Va., \$350,000; Smackover, Ark., (consolidated district No. 39) \$40,000; Thurston County, Wash., (P. O. Olympia) \$50,000.

The following school boards have recently effected bond sales as follows: Allegheny County, Va., (P. O. Covington) \$75,000; Alliance, Nebr., \$75,000; Arkansas Pass, Texas, \$5,000; Baker County, Oregon, (P. O. Baker) \$5,000; Brady Valley, Texas, \$4,500; Cedar Falls, Iowa, \$6,000; Contra Costa County, Calif., \$25,000; Delhart, Texas, \$10,000; Ebenezzer, O., \$80,000; Fergus Co., Mont., \$55,000;

Gibson City, Ill., \$135,000; Saline, Tex., \$15,000; Greenville, O., \$10,500; Hempstead, N. Y., \$225,000; King Co., Texas, \$6,000; Linden Township, N. J., \$485,000; Los Angeles County, California, \$74,000; Malta, Texas, \$6,000; Michigan City, Ind., \$240,000; Midland, Pa., \$250,000; Milan, Mo., \$85,000; North Vernon, Ind., \$55,000; Oakton Township, S. Dak., \$13,000; Pleasantville, O., \$6,000; Randolph County, \$225,000; Rochester, N. Y., \$300,000; Rock Island, Okla., \$12,800; Shelby County, Ill., \$44,000; Tillamook County, Oregon, \$50,000; Vera, Okla., \$30,000; Washington County, N. Car., \$100,000; West Springfield, Mass., \$18,000.

Fighting School Bond Issues

No matter how laudable and necessary a school bond issue may be, it is bound to be opposed by some one. The favorite newspaper attack is to charge the school authorities with arbitrary or secretive methods. Let the public once get the notion that the school authorities scorn public opinion and the mischief is begun.

Thus, a Maryland newspaper, in opposing a \$150,000 school bond issue after it had failed to secure an answer from the school board as to the use of the money which it deemed sufficiently precise, went at it this way:

"When explaining, or trying to explain, why they do not answer the questions as propounded by this newspaper, they ask one themselves, which goes something like this:

"Who the H— is he, that we should have to answer the question that he asks?"

"We will try to explain who we are and why we feel we have a right to ask and demand an answer to our questions."

The newspaper then tells all about itself in laudatory terms claiming that it represents the public and hence has a right to ask questions and to demand answers, and adds: "Don't try

to get personal, gentlemen of the board of education. Don't try to cloud the issue involved by any personal references. Answer the questions frankly, or admit that you will not tell the public, the taxpayers, what you intend to do with \$150,000 of their money, should it be entrusted to you."

A Pennsylvania newspaper being disgruntled because the local school board did not express its choice of a school site before the bond election, broke out in the following:

"The parents today are highly dissatisfied with the schools. And along comes the board and asks them to vote it five hundred thousand dollars to improve the schools. 'But,' sayeth the board, 'we will not tell you how we are going to expend the money; that is our business; you must trust to our superior knowledge and our erudition, which, we assure you, is supreme and trustworthy.'

"This board, which asks for five hundred thousand dollars, is the same board which has refused, absolutely and unequivocally, to do anything to correct the defects in the schools; which defects are a matter of common knowledge and a subject for general comment. What the board has, in effect said to the people is this: 'The schools suit us; whether they suit you is not material to us.'

"When the board seeks to show the public that there is no legal ground to compel it to state what it is going to do with the money it asks the people to vote to it, the board makes itself supremely ridiculous. About so stating or not it can suit its sweet pleasure—and the voters can suit their pleasure about voting the board the money. And there you are!"

Pottsville Suffers a Defeat

Pottsville, Pa. The \$500,000 school bond issue was defeated. The project had been advocated by Superintendent G. H. Weiss and the



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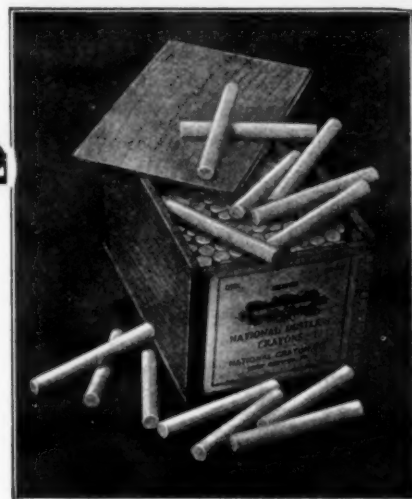
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board of education. But, certain taxpayers, supported by newspapers, opposed the bond issue. One of the reasons given was that the loan would be illegal owing to the fact that the assessment upon which the same was based had been estimated too high. The board, however, was not to blame since the assessment authorities had made an unexpected reduction. There was also some dispute about a new athletic ground. Finally, the press seized upon the fact that 258 high school pupils had failed in the test made by their own teachers.

The character of the attacks made upon the \$500,000 school bond issue at Pottsville may be noted in the following editorial which appeared in the Pottsville Journal under date of October 28.

"Here is a school board. It has high views on super-education. Also it has a group of politicians who must be fed; or at least, who so assert. They talk of half a million or million dollar school buildings; beautiful pieces of architecture but they will not, they dare not say, that fine buildings will educate the children. You must have something more than that; you must, first of all, have an organization at the head of the schools that is intent upon educating the children; giving them a real fighting chance instead of playing peanut politics, boosting salaries of favorites and ignoring faithful workers who give their lives to teaching children, teaching them with care and with an honest desire to do all for them that is possible. It is proposed to issue bonds for a half million or a million dollar school building. Easiest thing in the world; big brokerage firms stand ready to take the bonds, which are tax free, and behind them a lot of rich folks are ready to scramble to buy.

"But what of the people in the district; what of the humble home owners? Where they are

paying a tax of maybe seventy dollars a year they will have to pay a tax of one hundred and fifty dollars a year, and will have no guarantee, not even an assurance, that their children will be better educated. In fact they will not be; the only thing they will have will be more ornate surroundings."

THE JANITOR-ENGINEER PROBLEM.

(Continued from Page 38)

It is the janitor-engineer training school, where men and women may be trained under skilled experts to perform, in the proficient manner now demanded by present day educational standards, the numerous tasks which are connected with the proper up-keep of a modern school building.

(To be continued.)

SCHOOL FINANCE PROBLEMS—HOW SOLVED.

(Concluded from Page 49)

Prof. Sears enumerates a series of problems relating to school finance and then concludes:

"With these problems before us, some of them philosophical and others extremely practical in character, some of them state or national and others strictly local in their bearing, some of them large and others small, some of them intricate and very difficult and others relatively easy of solution, we find ourselves face to face with practically a new field of study in education. These problems are but points of contact with this field. They do not suggest the orderly arrangement essential to a body of knowledge which we call a science. They are rather only promising prospects beneath which we believe are rich veins of ore.

"It is true that financing, organizing, and administering are for education inseparable. A right financial solution must be a desirable if not always the very best educational solution: We must economize in education as well as in other lines of public service. Our aim should be to get full value for our money and

not merely to save it. Not less expenditures, but wiser expenditures should be our aim. Wiser expenditures will mean wiser policies and therefore better schools. If this kind of contribution can be made, then we shall in time have built up a body of well organized knowledge which we may be able to call the science of school finance or better perhaps, a branch of the science of public finance."

BUSINESS EXECUTIVES OF AMERICAN SCHOOLS.

(Continued from Page 51)

and the salaries of teachers have doubled. Seventy-two rooms or an average of about fourteen per year have been added during this time at a cost of about six thousand dollars per room. All this has been done without a bond issue. Mr. Wade believes in the plan of paying as you go, if possible. The board of education has planned a building program which calls for the expenditure of over one hundred thousand dollars per year for building purposes only, during the next five years—a program of over one-half million dollars without a bond issue.

Mr. Wade was born in Farmville, Virginia, in 1885. He was educated at Hampden Sidney College, Virginia, and later had three years of post-graduate work in Columbia University, New York City. Bluefield has a population of about twenty thousand with a school enrollment of over four thousand.

MINNEAPOLIS STRIKES THE ECONOMY ROAD.

(Concluded from Page 52)

janitors and engineers also call attention to unsatisfactory construction and equipment. These reports, when utilized by the division of design and inspection, in the plans and specifications of new buildings, serve to increase the progressive efficiency of the entire school system.

The pupil that takes a pride in good handwriting in School will take a prize with it in business . . .

Encourage your pupils by giving them a prize-pencil,—

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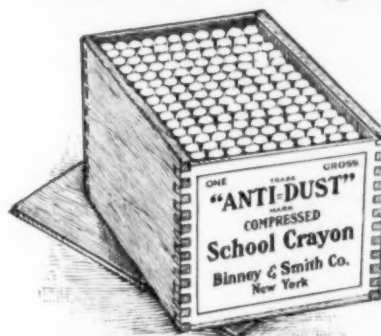
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John Doe	04217	9	18	7	18
Jane Smith	05143	8	22	17	17
John Doe	07317	21	3	0	0
Jane Smith	03424	4	9	26	26
John Doe	05232	17	5	20	20
Jane Smith	08123	21	12	16	16
John Doe	04622	16	6	10	10
Jane Smith	05317	3	7	11	11
John Doe	05142	15	6	22	22
Jane Smith	07618	7	17	22	22
John Doe	04246	11	26	4	4
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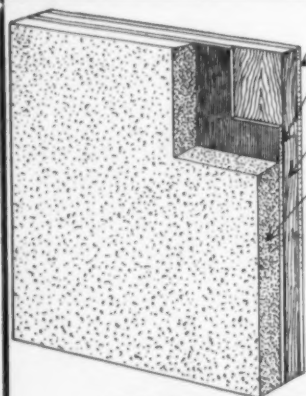
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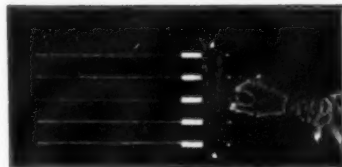
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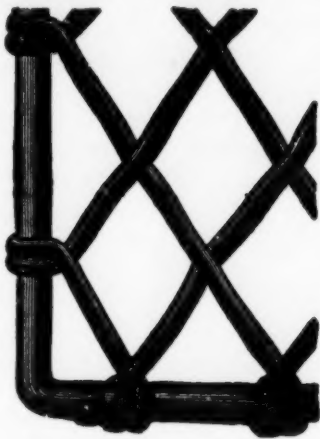
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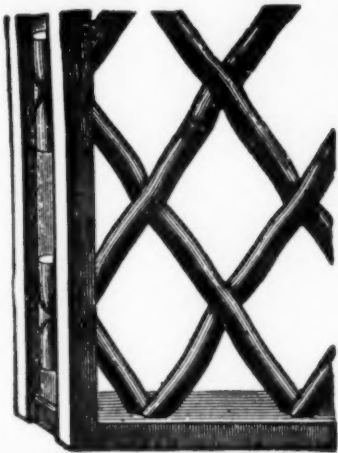
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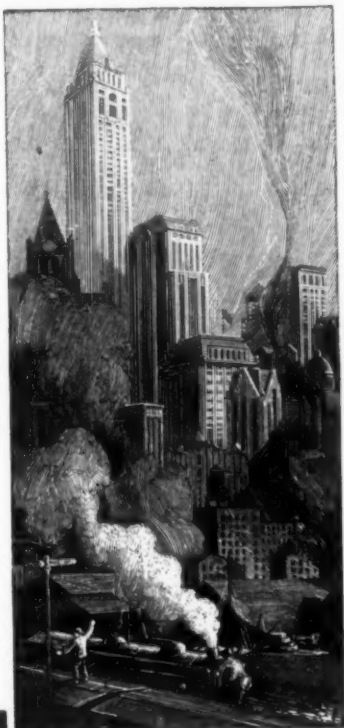


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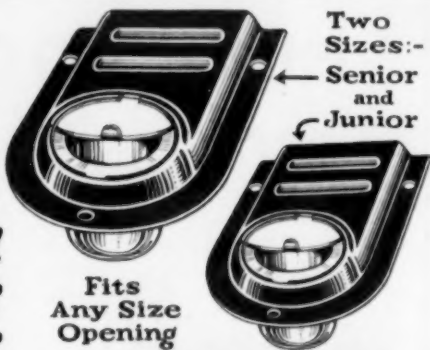
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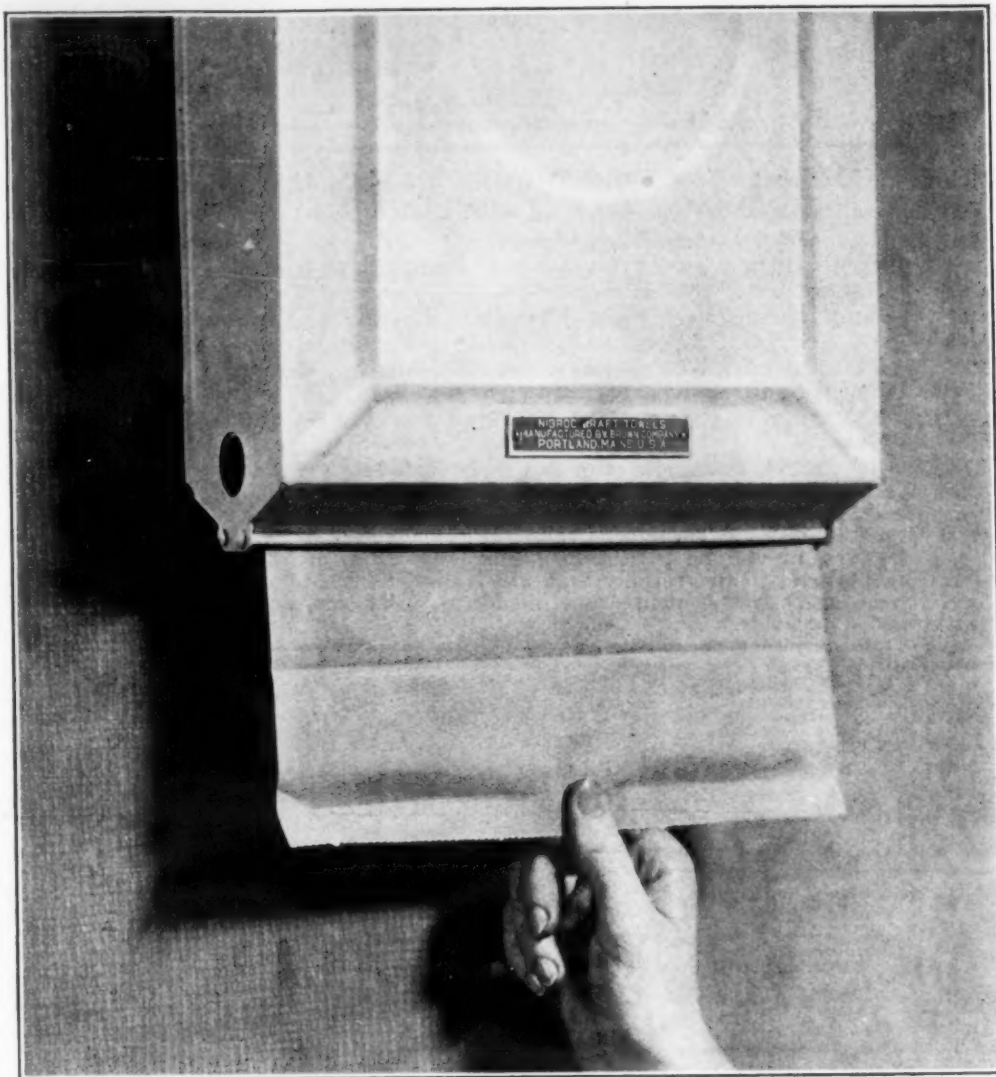
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If the Nibroc Towel were made especially to your order, it could not be better suited to school use.

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The manufacturers, Brown Company, Portland, Maine, will be pleased to mail to members of School Boards or of any educational institution a sample pack of Nibroc Towels.

AFTER THE MEETING



When in Doubt, Say Doctor

"Some months ago," writes Henry F. Pringle, in the N. Y. World, "I was bound for Birmingham, Alabama, from a little town in Mississippi. My seat mate in the Pullman was a Birmingham banker. He was a delightful old gentleman, kindly, courteous and affable. We talked of the South, of course. At first it was cotton. Then it was the negro. He said that true Southerners loved the negro and understood him. But he admitted that at times the race problem was embarrassing.

"I recall very vividly," he said, having to go to Tuskegee Institute during the administration of the late Booker T. Washington. My visit was, in a sense, official. They were giving a reception to a prominent government official and I knew I would have to meet Washington.

"Well, sir, I didn't know what to do. How should I address Washington? You see, I admired the man's brains. I thought a great deal of the work that he was doing. I was perfectly willing to shake hands with him, but I couldn't call him 'Mr.' Washington. No Southerner, you see, ever calls a negro 'Mr.'"

"I worried about it all the way to the school. I knew I couldn't just call him 'Washington.' I had too much respect for the man. To say 'Booker' was worse. But then some one reminded me that he was the holder of a Ph.D. That solved it! I called him Dr. Washington."

The Reason

The teacher was holding forth with reference to the circulation of the blood. Trying to make the matter clearer, she said:

"Now, boys, if I stood on my head, the blood, as you know, would run into it and I should turn red in the face. Now, what I want to know is this: How is it that while I am standing upright in the ordinary position the blood doesn't run into my feet?"

Whereupon one of the youngsters said: "Why, because your feet ain't empty!"

A junior high school freshman came to school with a bad cold, and a note from mother. The note:

Dear teacher: Please don't give Ann any more outside reading for History, as it is getting too cold outdoors. She sat outside on the porch all Sunday afternoon reading and as a result she has a bad cold. Thank you. Mrs. ———

Her Number

On his tour of the district an inspector of city high schools came before a class of girls. He wrote upon the blackboard, "LXXXX." Then, peering over the rims of his spectacles at a good looking girl in the first row, he asked:

"Young lady, I'd like to have you tell me what that means."

"Love and kisses," the girl replied.—Everybody's.



Reason Before the Rod.

Trials of a Young Instructor

The young instructor at college is often enough a likable fellow, but nevertheless he is subject to a peculiar kind of trouble—a fact that Arthur Latham Perry fully considered before becoming a tutor at Williams. His son, Mr. Carroll Perry, in his Professor of Life, gives us his father's amusing apprehensions. Here is the passage:

With characteristic method father set down in opposite columns the reasons for and the reasons against going to Williams as tutor. The score stands seven to two in favor of Williams. One of the reasons against accepting the offer was as follows:

"I shall in all probability subject myself to a great deal of annoyance and anxiety. A tutor as such is not greatly respected by students. They find innumerable ways to annoy him. They lock him in! They love to play tricks upon him. They will scrape and groan in recitation. They will disturb his slumbers by nocturnal howlings and by rolling stones down the stairs. This is not pleasant. He will treat them all politely, yet some of them will insult him. He must bear it and put a good face upon it, though he smart inwardly. If it is known that he is in love with a young lady in the village they will write her name upon the blackboard! And this would have to be borne with the wisdom of a philosopher and the spirit of a martyr."

Slim and the Schoolmarm

Slim, a youth fresh from a farm in the Middle West, had just taken on the job as driver of a coach in Yellowstone Park. In order to fit himself for the position he obtained as much information as possible from the driver whose place he had taken, and thought he had soaked up all the knowledge there was to be had about nature's show place.

On the drive leaving the Upper Geyser Basin the tourist crosses the Continental Divide twice at two different altitudes. Sign posts giving the names of the different points of interest and the altitudes are erected at frequent intervals throughout the park, and it was one of these that proved Slim's undoing.

The new guide was put in charge of a party of school teachers from Boston on his first trip. As they drove along the women kept reading the signs and commenting on them. "Continental Divide," read one, giving the altitude. A few miles farther on they encountered a similar sign, giving a still higher altitude.

"Why, how is this?" asked one of the party. "I thought we just passed the Continental Divide."

This was a poser for Slim. He studied for some time over it in thoughtful silence and then said: "Oh, lady! I think I know how that happened. They moved it and forgot to take down the sign."—Judge.

What's In a Name?

The Cincinnati School Index is authority for the statement that inspection of registers in schools has brought to light the fact that certain children in Cincinnati are without given names. Asked about her child's name one mother replied as follows:

"My boy is name C. O. he hasn't got no other name he is named after the state Cincinnati Ohio he just got the initials

from Mrs. ———."

Apple-Core Philanthropy

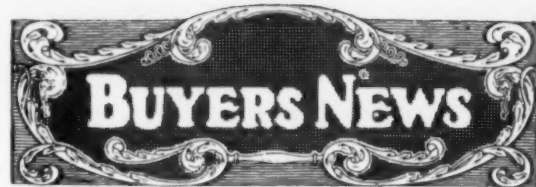
The backyard of a little St. Louis boy adjoined an orphanage, from which it was separated by a high wall. One day the boy's mother discovered him out by the apple tree eating one apple after another and tossing the cores over the wall. Fearing that he would have a stomach ache, she ordered him not to eat any more, but he called back earnestly:

"I must, mother. It's for the orphans! They're waiting for the cores!"—Youth's Companion.

A teacher had been telling the class of small children the difference between liquids and solids. All went well until a small boy asked, "Please, miss, what's jam?"—Washington Star.

Teacher—"If Shakespeare were alive today wouldn't he be looked upon as a remarkable man?"

Student—"Sure he would be; he would be 300 years old."—Virginia Reel.



TRADE PUBLICATIONS

Issue Special Catalog. Albert Pick & Company of Chicago have just issued an interesting supplementary catalog entitled "Timely Specials." This supplement describes and illustrates a variety of kitchen and cafeteria equipment, including glassware, chinaware, silverware, crockery, table linens, kitchen and bakers' utensils, coffee urns, potato masher, sandwich pans, refrigerators, lunch counters, sanitary pastry cases, and various other supplies.

United States Government Specification for Interior Varnish. Circular No. 117, July, 1922, of the Bureau of Standards. Issued by the Bureau of Standards, U. S. Department of Commerce. The pamphlet takes up sampling, commercial requirements of varnish, laboratory examination, and basis for purchase. The specification has been officially adopted by the Federal Specifications Board for departments of the government in the purchase of materials. It may also be used as a guide for commercial establishments and schools confronted with the task of purchasing a varnish of high quality.

PUBLICATIONS RECEIVED

The Daily Schedule in the High School. By J. B. Edmonson, Warren E. Bow, and Irvin Van Tassel. Bulletin No. 15, 1924, issued by the Bureau of Education, Washington, D. C. The pamphlet discusses the problems involved in the work of schedule-making and offers a number of suggestive programs which are in operation in various high schools of the country.

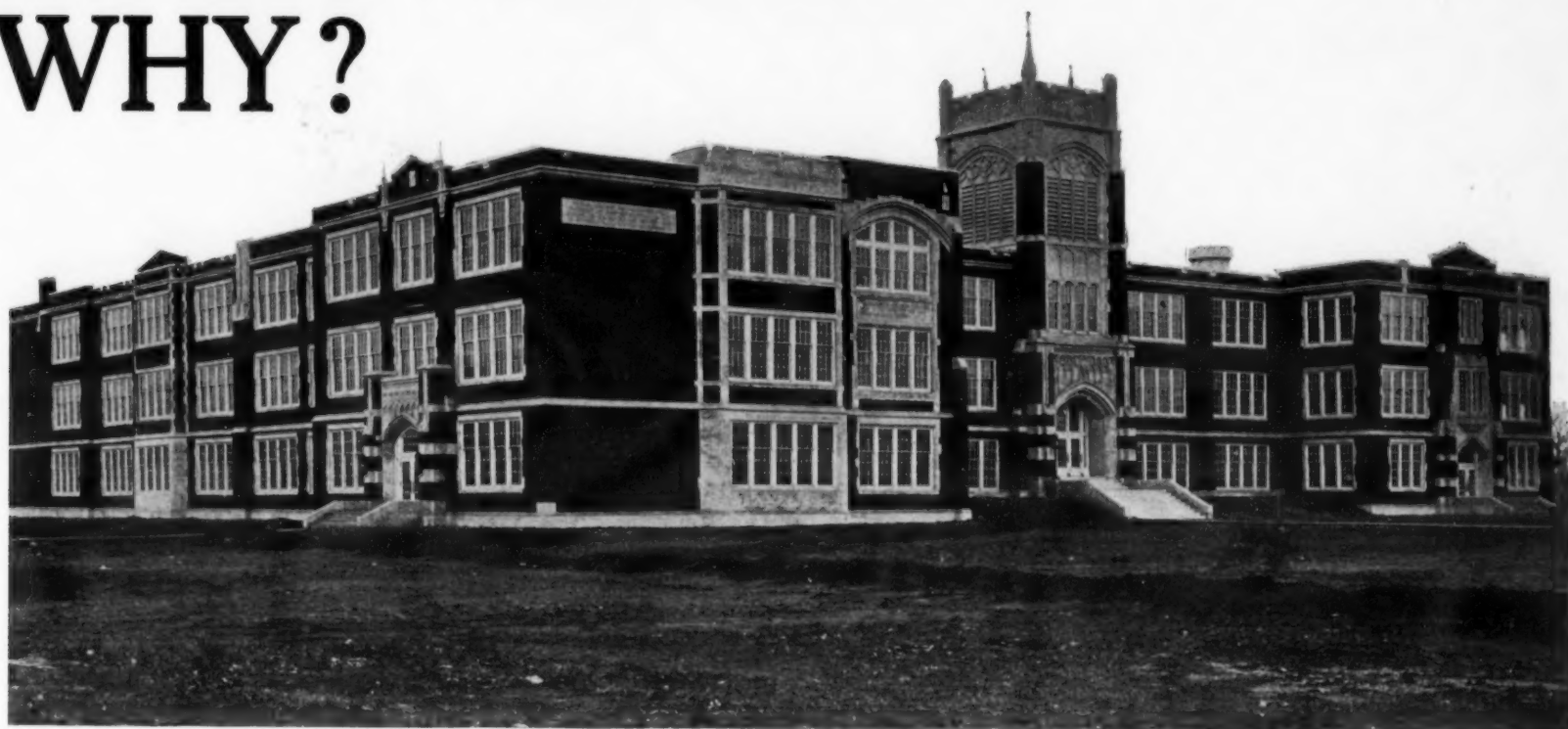
Intelligence of Seniors in the High Schools of Massachusetts. Stephen S. Colvin and Andrew H. MacPhail, Brown University. Bulletin No. 9, 1924, U. S. Bureau of Education, Washington, D. C. The study was made by a special commission appointed by the governor of Massachusetts. It involved as one of the problems the possibility of establishing a state university or bringing about a cooperative arrangement between the state and the institutions of higher learning now existing in the state. The study took up the discussion of the proportion of present seniors in high schools as prospective college material, the type of schools to which high school seniors plan to go, differences in intelligence levels of boys and girls in Massachusetts high schools, preferences in high school subjects and relation of psychological scores to such selections, and the economic status of parents related to the intelligence of seniors. Among the conclusions brought out by the study are the following: That about 10,000 seniors in Massachusetts high schools plan to go to some institution of learning after graduation, and that 6,000 plan no further education. Seniors are divided unequally among eight different high-school courses. Over two-fifths are taking commercial work alone, and only three per cent are taking classical and academic courses. On the basis of psychological scores, the classical, academic, college preparatory, and scientific groups are distinctly in the lead in intelligence, while the commercial group ranks lowest. Seniors selecting languages and science lead the others in psychological scores, while the vocational groups rank lowest. About five-sixths of the seniors have chosen ultimate life occupations. About one-half of them intend to enter professions, and about one-third clerical work. Among careers chosen by both sexes, those selecting professions and positions as business executives and foremen rank highest psychologically, and those going into clerical work lowest. Seniors coming from professional homes lead the others psychologically, and those whose parents are farmers and day laborers rank lowest. Seniors making the highest median psychological scores were those whose parents were both born in English-speaking countries.

Lesson in Politics

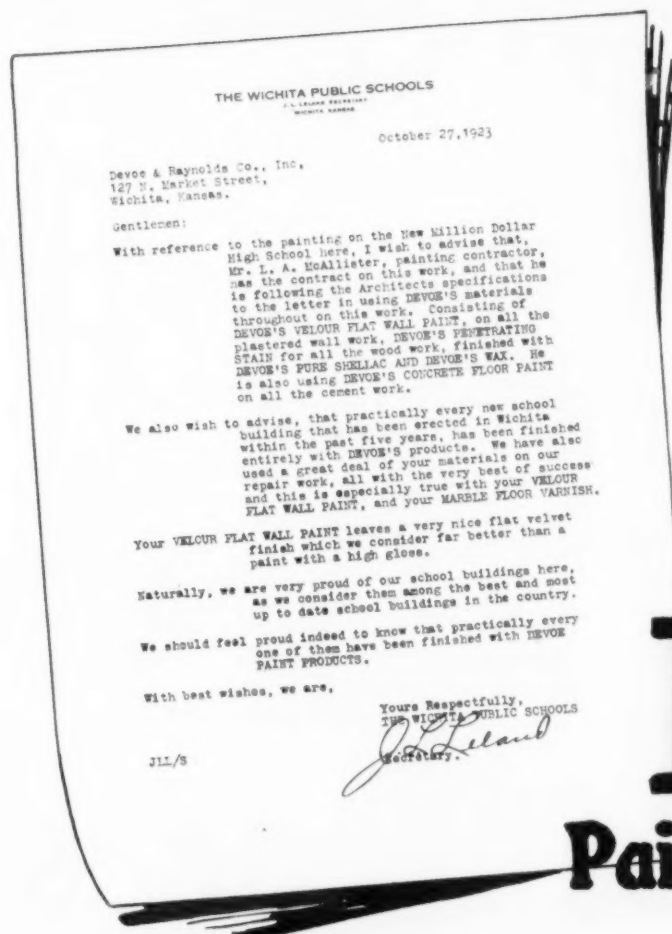
Teacher: What is this Dawes Plan?

Young America: Please, sir, I think it is to elect Coolidge.

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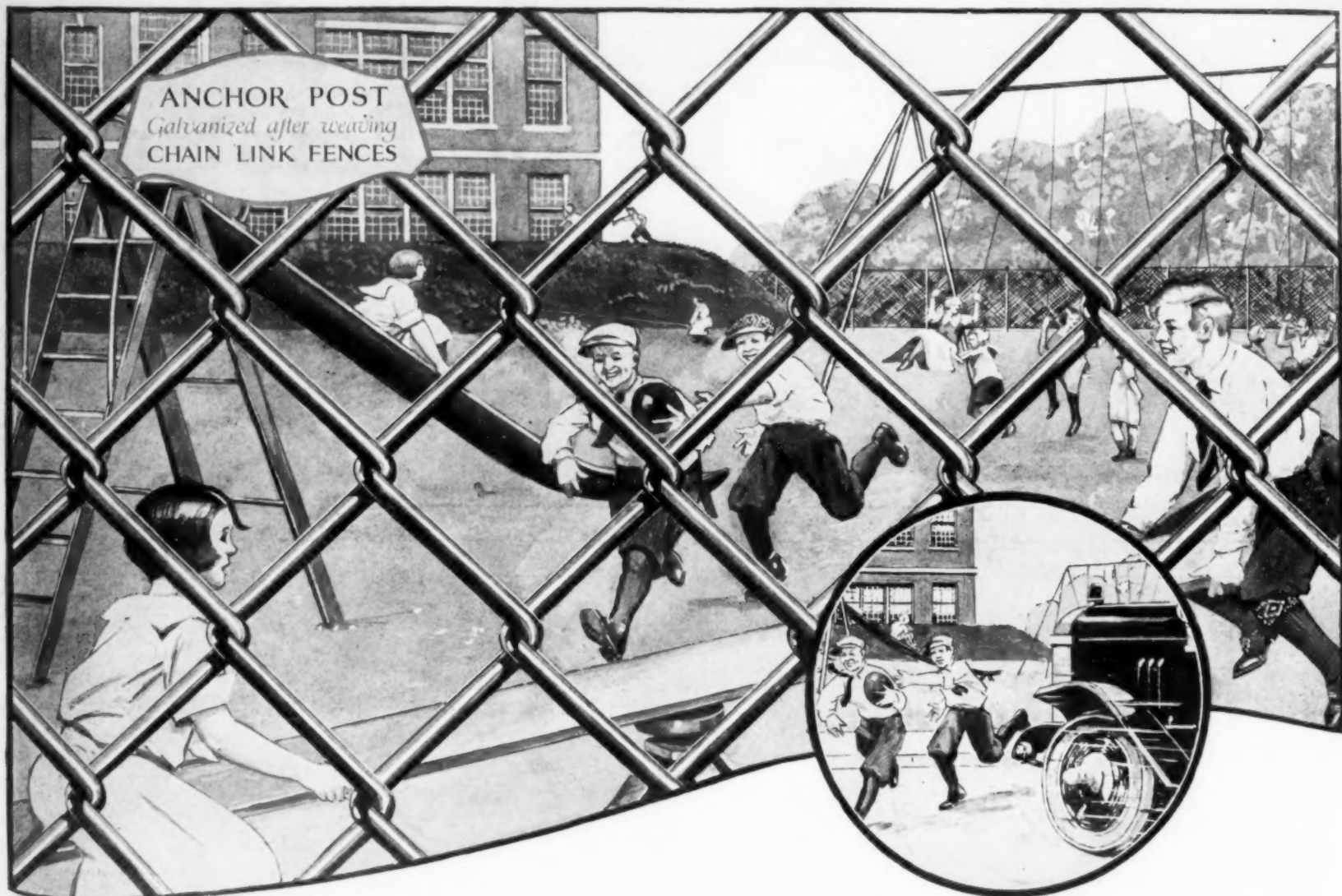
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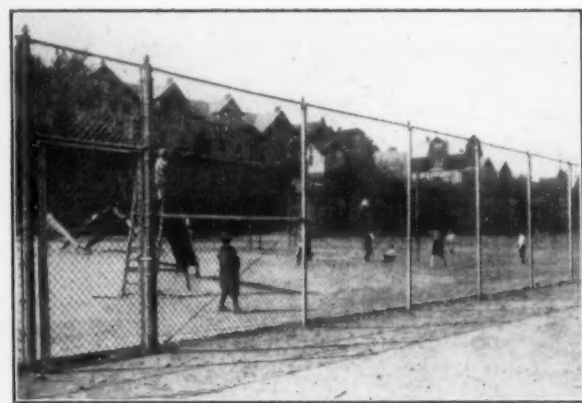
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Gwynn's Falls Park High School
Architects—Smith & May,
Baltimore



Jackson Place School
Architect—
Theodore Wells Pietsch,
Baltimore



The vision responsible for this new construction and the care with which the work is being put through to successful completion is due to Dr. Henry S. West, Sup't of Public Instruction of the City of Baltimore, Dr. George D. Strayer, Educational Adviser, Mr. H. G. Perring, Supervising Engineer of the Public Improvement Commission, and Mr. Henry Adams, Mechanical Engineer.

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These five new schools represent an approximate expenditure of \$15,000,000. They embody the best that is to be had in buildings, in equipment—and in their Electric Time Systems. International Master Clocks, Program Devices, Secondary Clocks, and all necessary electrical equipment have been supplied to meet the particular requirements of each of these Schools.

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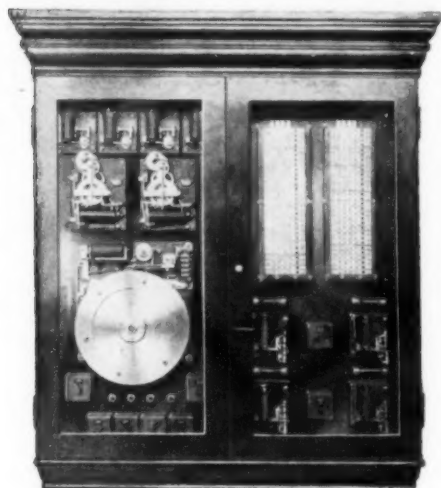
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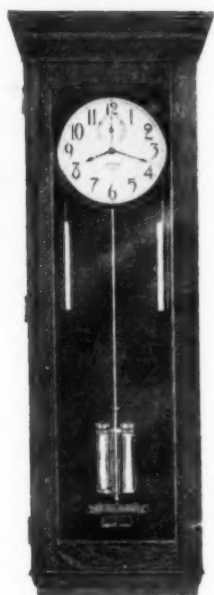
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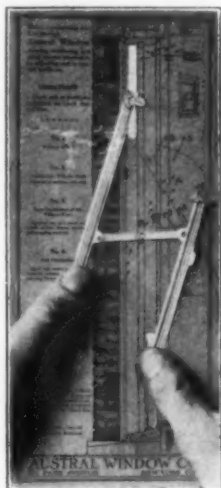
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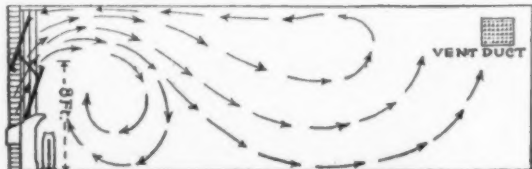
With either, these 7 points of superiority over double hung sash, are the same:

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Absolute control of light can be had at all times.
3. Upper and lower sash reversible for cleaning or glazing from inside of the building.
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